



P.322/30/II

INDEX OF AUTHORS' NAMES

ABSTRACTS A and B, 1930.

An asterisk denotes a previous abstract. Patents are marked (P.)

Anonymous.

Edelhauser's extraction apparatus, A., 567.
alkaline degradation of cellulose itrate, A., 1418.
determination of the explosion pressure for acetylene saturated with water and acetone vapour, A., 1256.
saponification value, B., 25.
effect of plasticisers in clear and pigmented [tung oil] varnishes, B., 68.
increase of colour stability of cracked benzines, B., 175.
[German] specification for zinc white and zinc oxide for use in paints, B., 249.
apparatus for concentration of sulphite-[cellulose] waste liquors, B., 278.
some properties of sponge rubber, B., 32.
apparatus for the determination of sulphur in iron and steel, B., 560.
determination of the phosphate requirement of soils by pot-culture methods, B., 578.
properties of permalloy-C, B., 616.
carnauba wax, B., 621.
pressure-synthesis operations of the Du Pont Ammonia Corporation, B., 657.
[German] supervisory department for ammoniacal and phosphatic fertilisers, B., 734.
standard methods (revised) for determining viscosity and jelly strength of glue, B., 919.
determination of lustre, B., 931.
determination of small quantities of carbon monoxide, B., 945.
absorption of sulphur and phosphorus by iron and steel in welding with impure acetylene, B., 950.
determination of the transparency to light of turbid media, B., 957.
explosion pressures of mixtures of benzene and petroleum, B., 976.
explosion-proof lubricants, B., 976.
dependence of the temperature of explosive decomposition of acetylene on pressure and gas-stream velocity, B., 980.
rapid test of the tendency to rust of iron and steel, B., 990.
resistance of metals and alloys to attack by salt solutions, B., 992.
determination of carotene in flour with the Pulfrich photometer, B., 1088.
jasmine, B., 1091.
zdravet in modern perfumes, B., 1091.
filtering materials for water and sewage works, B., 32.

A.

A.C. Spark Plug Co., ceramic material and its manufacture, (P.), B., 190.
[nickel] alloys, (P.), B., 823.
A.E.G.-Union Elektrizitäts-Ges., Heyden, H. von der, and Typke, K., treatment of transformer, switch, and turbine oils prepared from petroleum, (P.), B., 181.
Aarnio, B., effect of absorbed ions on soil reaction, B., 253, 921, 1041.
Aaronson, H. A. See Olsen, F.
Aarts, C. J. G., manufacture of a material applicable as an absorbent, comprising carbon, iron, and iron oxide, (P.), B., 598.
Aarts, J. G., fuel for internal-combustion engines, etc., (P.), B., 181.
Abakumovskaya, L. N. See Nametkin, S. S.
Abbad, M., laboratory preparation of hydrogen sulphide, A., 722.
Abbe Engineering Co. See Kleinfeldt, H. F.
Abbate, R. See Agostini, P.
Abbott, A. V., low-temperature distillation or carbonisation of bituminous coal, (P.), B., 936.
Abbott, F. D., testing of automotive rubber parts assembled under compression. I. and II., B., 678.
Abbott Laboratories. See Raiziss, G. W.
Abderhalden, E., biological significance of intermediate compounds, A., 1314.
Abderhalden reaction in urine, A., 1476.
Abderhalden, E., and Bahn, A., identification of *D*- α -aminovaleric acid (norvaline) in addition to *D*- α -aminoisovaleric acid (valine) among the products of fission of globin by means of the differing rates of amination of the corresponding α -bromo-compounds, A., 800.
comparison of the influence of the constitution of homologous dipeptides of *L*-tyrosine and of the corresponding halogenoacyl compounds on their capacity for fission by alkali, erepsin, and trypsin-kinase, A., 816.
Abderhalden, E., and Brockmann, H., relations between enzyme and substrate; behaviour of erepsin and trypsin-kinase towards polypeptides in which the free amino- or carboxyl group is protected, or in which both these groups are substituted, A., 501.
constitution of proteins and polypeptides, A., 1603.
resistance to hydrolysis of benzoyl and halogenobenzoyl groups united to oxygen and to nitrogen in amino-acids and peptides, A., 1604.
structure of silk fibroin. II., A., 1609.
Abderhalden, E., and Buadze, S., use of urine in place of serum in the Abderhalden reaction, A., 815.
comparison of the enzymes present in urine producing the Abderhalden reaction with pepsin and trypsin, A., 815.
origin of creatine and creatinine in the animal organism, A., 959.



- Abderhalden, E., and Damodaran, M., degradation of oxy- and carbon monoxide-haemoglobin by pepsin hydrochloride, trypsin-kinase, and erepsin, A., 815.
behaviour of polypeptides containing *dl*- α -aminomyristic acid towards *N*-alkali, erepsin, and trypsin-kinase, A., 816.
- Abderhalden, E., and Herrmann, O., attempts to separate from organ press-juices by fractional precipitation with acetone polypeptidases with specific action, A., 501.
- Abderhalden, E., and Heumann, J., physico-chemical behaviour of polypeptides obtained from glycine, A., 1420.
action of *N*-sodium hydroxide, erepsin, and trypsin-kinase on polypeptides containing glycine, A., 1476.
- Abderhalden, E., and Kato, J., action of *N*-alkali, erepsin, and trypsin-kinase on isomeric polypeptides derived from *d*-alanine, *d*-valine, and *l*-leucine, A., 815.
- Abderhalden, E., and Mayer, Hugo, influence of "foreign" components in polypeptides on their capability for hydrolysis by enzymes, A., 500.
- Abderhalden, E., and Reich, F., effect of *N*-alkali, erepsin, and trypsin-kinase on polypeptides containing *dl*-serine or *dl*-isoserine and on their corresponding halogenoacyl compounds, A., 815.
action of *N*-alkali, erepsin, and trypsin-kinase on polypeptide-like compounds containing β -aminoisovaleric acid, A., 1475.
- Abderhalden, E., Rynidn, T., and Schwab, E., action of *N*-alkali, erepsin, and trypsin-kinase on compounds of polypeptide nature containing β -alanine, A., 1066.
- Abderhalden, E., and Saito, M., action of *N*-alkali, erepsin, and trypsin-kinase on isomeric polypeptides containing *d*-alanine, *d*- α -aminobutyric acid, and *l*-leucine, A., 1066.
- Abderhalden, E., and Schmitz, A., resolution of chloroacetyl-*dl*-leucine into its optical components by means of α -phenyl-ethylamine, A., 73.
structure of gelatin, A., 1458.
- Abderhalden, E., and Schwab, E., behaviour of polypeptides containing thyroxine in their structure towards enzymes and examination of their biological behaviour, A., 500.
degradation of caseinogen by pancreatic and pancreatic juice, also by trypsin-kinase and erepsin, A., 500.
- Abderhalden, E., and Schweitzer, F., influence of constitution of homologous dipeptides of *dl*-phenylalanine and the corresponding halogenoacyl compounds on their power of hydrolysis by alkali hydroxide, erepsin, and trypsin-kinase, A., 356.
influence of buffer solutions at weak alkaline reaction, alone and in presence of enzymes, on the removal of halogen from halogenoacylamino-acid compounds, A., 816.
significance of the amino- or of the carboxyl group in polypeptides for the action of definite enzyme complexes, A., 1066.
- Abderhalden, E., and Wertheimer, E., behaviour of thyroxine in the animal organism, A., 117.
thyroxine formation from thyronine (deiodothyroxine) and iodine in the animal organism, A., 1221.
- Abderhalden, E., and Zeisset, W., removal of halogen from some homologous halogenoacyl derivatives of glycylglycine and their fission by *N*-sodium hydroxide at 37°, A., 356.
nature of enzyme actions carried out with enzymes of the polypeptidase group, A., 501.
- Abderhalden, E., and Zumstein, O., behaviour of polypeptides containing proline towards the erepsin and trypsin-kinase complex, A., 1475.
- Abé, H. See Honda, K.
- Abe, J. See Kobayashi, K.
- Abe, S. See Kimura, K.
- Abel, E., effect of movement in the system metal-nitric acid, A., 1257.
- Abel, E., and Neusser, E., vapour pressure of nitrous acid, A., 24.
- Abel, E., Redlich, O., and Spausta, F., ternary system lead-antimony-magnesium antimonide, A., 861.
- Abel, E., Schmid, H., and Römer, E., kinetics of nitrous acid. VII. Velocity and temperature, A., 1128.
- Abel, E., Schmid, H., and Stein, M., spectroscopic determination of the equilibrium between nitric acid, nitric oxide, and nitrogen peroxide, A., 1370.
- Abel, E., Schmid, H., and Weiss, J., kinetics of nitric acid; oxidation of arsenious acid, A., 548.
- Abelin, I., [nutritive value of] bread, A., 108.
- Abelous, J. E., and Argaud, R., origin of adrenaline, A., 1623.
- Abetti, G., and Novakova, B., structure of the line H_{α} and the period of rotation of the solar chromosphere, A., 123.
- Abildgaard, J., and Baggesgaard-Rasmussen, H., ionisation constants and absorption spectra of ephedrine and ψ -ephedrine, A., 470, 1177.
- Abitz, W., Gerngross, O., and Herrmann, K., X-ray structure of gelatin micelles, A., 1250.
- Abonnenc, L., measurement of the magnetisation coefficient of aqueous solutions by the falling-drop method, A., 992.
- Aborn, R. H., and Davidson, R. L., X-ray investigation of the structure of copper-zinc oxide catalysts, A., 552.
X-ray studies of particle size in silic, A., 842.
- Aboulenc, J. See Senderens, J. B.
- Abramson, H. A., electrokinetic phenomena. I. Adsorption of serum-proteins by quartz and paraffin oil, A., 102.
electrokinetic phenomena. II. Relation between cataphoretic and electroendosmotic mobilities, A., 1250.
- Abushady, A. Z., diagnosis of the typhoid bacillus, A., 644.
- Accumulatoren-Fabr. Akt.-Ges., drying accumulator plates, (P.), B., 335.
- Accurate Recording Instrument Co., Ltd. See Neuman, H. G. A.
- Aceta Ges.m.b.H., apparatus for heating air in dry-spinning of artificial threads, (P.), B., 31.
manufacture of artificial thread, (P.), B., 609.
mixed [wool-acetate silk] fibr., (P.), B., 943.
manufacture of artificial threads from cellulose esters or cellulose ethers, (P.), B., 943.
dry spinning of artificial threads, (P.), B., 858.
- Acetex Safety Glass, Ltd., and Johnston, W., manufacture of compound sheets of glass and cellulose derivative composition, (P.), B., 768.
- Achard, C., and Arcand, J., lipin-phosphorus accompanying globulins in blood-serum and serous fluids, A., 943.
- Achard, C., and Enachesco, M., reciprocal action of chloride and alkali on the body in acute diseases, A., 364.
spontaneous and provoked variations in the distribution of chlorine between serum and blood-corpuscles in diseases, A., 806.
- Achard, C., Grigaut, A., and Codounis, A., pathological variations of protein osmotic pressure and the protein composition of blood-serum, A., 948.
- Achard, C., and Hambuer, M., blood-serum-proteins in anæmic conditions, A., 1309.
- Achard, C., and Ornsztajn, I., constituents of blood-serum in myxœdema, A., 1311.
- Acharya, D. P., spectrum of trebly-ionised krypton, A., 265.
- Acheson, M. A. See Nitish Thomson-Houston Co., Ltd.
- Acheson Graphite Co. See Koethen, F. L.
- Achmatowicz, O., Favett, R. C., Perkin, W. H., jun., and Robinson, R., strychnine and brucine. XI. Dihydrobrucine and some derivatives, A., 130.
- Acieries de Gennevilliers. See Bunet, P. E.
- Ackeren, J. van, and Koppers Co., regenerative heating structure [for retort overbatteries], (P.), B., 408*.
coking retort oven, (P.), B., 499*.
vertical retort oven, (P.), B., 597.
recuperative coking retort oven, (P.), B., 1100.
standpipe for coking ovens, (P.), B., 1138.
- Ackeren, J. van. See also Becker, J., and Koppers Co.
- Ackerman, A. I. and Catalytic Chemical Co., treatment of oil wells to enhance their productivity, (P.), B., 47.
treatment of bricating oil stock, (P.), B., 359.
treatment of mineral oils, (P.), B., 450.
enhancing the flow of oils through pipe lines, (P.), B., 854.
treating fuels, (P.), B., 894.
- Ackerman, J. See Bancroft, W. D.
- Ackermann, L., lead-magnesium alloys, A., 680.
- Ackermann, J. See I. G. Farbenind. A.-G.
- Ackermann, J., and Knuth, H., improvements in preparing and moulding factories, especially for manufacturing large blocks, B., 989.
- Ackermann, H., Langenheim, W., and Knuth, H., manufacture of refracto, acid-resisting, and other products bonded by means of clay, (P.), B., 241*.
- Ackerman, M. H., and Sichel, L. C., refrigerating apparatus, (P.), B., 84.
- Ackerman, W., simplified comparison electrode for potentiometric titrations, A., 50.
action of papayotin and papain on hide powder, B., 678.
- Ackers, C. W. See Mussehl, F. E.
- Acklin, hygienic evaluation of surface water, B., 967.

- Acree, S. F., and Fawcett, E. H., problem of dilution in colorimetric hydrogen-ion measurements. II. Use of isohydric indicators and superpure water for accurate measurements of hydrogen-ion concentrations and salt errors, A., 560.
- Acree, S. F. See also Hall, W. C., Kline, G. M., Schreiber, W. T., and Slater, C. S.
- Activated Sludge, Ltd. See Coombs, J. A.
- Acton, M. G., jun., solution of arsenious and mercuric iodide, B., 484.
- Acton, W., manufacture of products derived from maize, (P.), B., 393.
- Adadurov, I. E., manufacture of ferric chloride, B., 903.
- Adadurov, I. E., and Boreskov, G. K., dependence of the catalytic activity of vanadium pentoxide on its mode of combination with silica, B., 659.
- vanadium [pentoxide] catalyst, B., 1026.
- deposition of vanadium pentoxide as catalyst on chamotte, B., 1149.
- deposition of silver metavanadate on chamotte, B., 1149.
- precipitation of ferro-vanadium catalyst on chamotte, B., 1149.
- Adadurov, I. E., and Weinschenker, P. J., catalyst not containing platinum for the production of nitric acid, A., 1132.
- Adair, G. S., thermodynamic analysis of the observed osmotic pressures of protein salts in solutions of finite concentration, A., 156.
- Adair, G. S., and Callow, E. H., osmotic pressure of gelatin solutions in equilibrium with magnesium chloride, A., 1250.
- Adair, G. S., and Robinson, M. E., specific refraction increments of serum-albumin and serum-globulin, A., 1305.
- Adam, H. See Ebeling, A.
- Adam, N. K., structure of surface films. XIV. Esters of fatty acids; evidence of flexibility in the long chains. XV. Amines, A., 408.
- Adam, N. K. See also Rosenheim, O.
- Adam, T. C. C., and Russell, Alfred, absorption spectra of diphenyl and some derivatives, A., 395.
- Adam, W., jun., the Ajax-Wyatt or vertical-ring induction furnace, B., 671.
- Adam, W. G., Murdock, D. G., and Gas Light & Coke Co., production of ammonium sulphate, (P.), B., 817.
- Adam, W. G., and Sach, J. S., free carbon formation in coal tars and pitches, B., 44.
- Adam, W. G. See also Gas Light & Coke Co.
- Adams, A. S., adsorption of air on glass as a function of temperature, A., 286.
- Adams, (Miss) E. See Corson, B. B.
- Adams, E. Q., and Charpentier, E. R. H., capillary manometer system for preparing mixtures of gases with a very high ratio between components, A., 314.
- Adams, F. D., transfusion of matter from one solid to another under the influence of heat; new factor in the process of metamorphism, B., 535.
- Adams, F. W., and Cooper, C. M., performance of [heat] economisers in the drying of pulp and paper, B., 552.
- Adams, G. O. See Clark, H. W.
- Adams, J. M., polar properties of single crystals of ice, A., 1099.
- Adams, J. W., centrifugal liquid purifier, (P.), B., 87*.
- Adams, J. W. See also Preston Street Combing Co., Ltd.
- Adams, L. H., and Gibson, R. E., compressibility of rubber, B., 781.
- Adams, L. V. See Kienle, R. H.
- Adams, M. See Sherman, H. C.
- Adams, M. A. See Himwich, H. E.
- Adams, R. See Armendt, B. F., Bock, L. H., Bousquet, E. W., Browning, E., Ford, S. G., Greer, C. M., Lyan, W. H., Maxwell, B. W., Stanley, W. M., and Stearns, H. A.
- Adams, R. C. See Imperial Chem. Industries, Ltd.
- Adams, W. H., [fibrous] material for making gears and similar objects, (P.), B., 137.
- Adamson, A. B. See Chattaway, F. D.
- Adamson, G. P. See Gen. Chem. Co.
- Adcock, F., valve-operated coreless induction furnace for high-temperature research, A., 1265.
- Adcock, F., and Turner, D., impervious tubes of pure alumina, A., 1548.
- Addinall, C. R. See Kohler, E. P.
- Addink, H. See Cohen, E.
- Addy, C. W., Biling, J., Halkyard, H., and Celanese Corporation of America, treatment of yarns or threads, (P.), B., 186*.
- Addy, R. See Carlton Main Colliery Co., Ltd.
- Adelantado, L., treatment of superphosphate, (P.), B., 1027.
- Aderhold, H. See Schaefer, C.
- Adhikary, N. See Ray, P. C.
- Adida, A., manufacture of camphor from turpentine oil, (P.), B., 440.
- Adkins, H., Diwoy, F. F., and Broderick, A. E., competitive hydrogenations, A., 40.
- Adkins, H., Kinsey, M. E., and Folkers, K., condensation reactions of acetaldehyde over certain oxide catalysts at pressures from 1 to 500 atm. of hydrogen, A., 1559.
- Adkins, H., Kutz, W. M., and Coffman, D. D., alcoholysis of α -diketones in presence of hydrogen chloride, A., 1273.
- Adkins, H. See also Kutz, W. M., MacCorquodale, D. W., and McCubbin, R. J.
- Adler, A., and Jeddelloh, B. zu, biliary colouring matter and its derivatives in blood, urine, and faeces in liver disease, A., 1058.
- Adler, F., [apparatus for] printing textile fabrics, (P.), B., 11.
- Adler, H., and Diversey Manufacturing Co., cleaning [tinned] metal surface, (P.), B., 19.
- Adler, J. See Halla, F.
- Adler, K. See Diels, O.
- Adler, O., preparation of sarcomelanin from sarcomelanin acid, A., 493.
- Adler, O., and Adler, R., sterilisation of water, (P.), B., 442*.
- purification of water, (P.), B., 930.
- Adler, R. See Adler, O.
- Adlersberg, D., and Perutz, A., investigation of the water economy of the skin by means of the weal test. II. Influence of local cutaneous application of compounds and active substances derived from the blood on the absorption of intracutaneous saline weals, A., 1062.
- Adolph, G., applications of hydrogen peroxide in industry, B., 555.
- Adolph, G., and Pietzsch, A., bleaching process, (P.), B., 416*.
- Adolph, G. See also Pietzsch, A.
- Adova, A. N., and Smorodincev, J. A., artificial alteration of the reaction of waters in the campaign against *Anopheles* larvae and on the absorbing power of peat, A., 635.
- nature of proteases. VI. Relation between buffering capacity and power of digestion of various pepsin preparations, A., 1620.
- Adova, A. N. See also Smorodincev, J. A.
- Adriaens, L. See Vermeulen, A.
- Aehnelt, W. See Rassow, B.
- Afanasiev, A. S., influence of solvent on E.M.F. of silver-silver halide cells, A., 1376.
- Afanasiev, I. D., viscosities of crude-oil products, B., 402.
- Agamennone, G., determination of titania in titanium white, B., 622.
- Agcaoli, F., seguidillas bean, B., 119.
- Agde, G., preparation of crystallised iron, copper, zinc, and nickel sulphates [from pickling liquors], (P.), B., 283.
- Ageev, N. V., and Sachs, G., X-ray determination of the solubility of copper in silver, A., 1510.
- Ageev, N. V., and Vher, O. I., diffusion of aluminium into iron, B., 1069.
- Ageeva, V. A. See Kurnakov, N. S., and Schischokin, V.
- Agfa Ansco Corporation. See Frankenburg, W., Mankenberg, E., Matthies, O., Miller, A., Reddelien, G., and Wendt, B.
- Aggarwal, J. S., Das, R. S., and Ray, J. N., quinazolines. II., A., 225.
- Aggarwal, J. S., Khara, I. D., and Ray, J. N., phthalazines. II., A., 1598.
- Aggarwal, J. S., and Ray, J. N., quinazolines. III. Synthesis of 3:4-quinazolinylquinazolines, A., 225.
- N-acylpyrazolones as acylating agents, A., 617.
- Aggradi, M., f.p. of pears and apples, B., 789.
- Agostini, P., detection of the principal anions by separate tests, A., 311.
- thiodiphenylcarbazine for the detection of magnesium, A., 1147.
- Agostini, P., and Abbiate, R., detection of certain anions, A., 725.
- detection of alkaline-earth metals, A., 1147.
- comparison of Mellhiney's and Rosenmund's methods for determining unsaturated linkings in olefinic hydrocarbons, A., 1157.
- Agruss, M. S. See Ball, T. R.
- Agsten, R. See Heiduschka, A.
- Aharoni, J., and Dhéré, C., influence of the wave-length of exciting rays on the fluorescence spectrum of α -tetraporphyrin; structure of this spectrum from the infra-red to the ultra-violet, A., 1092.

- Aharoni, J., and Scherrer, P., susceptibility of nitric oxide at different temperatures, A., 143.
- Aharoni, J., and Simon, F., magnetic investigations on adsorbed gases, A., 273.
- Ahlbeck, H. W. See Weith, A. J.
- Ahlberg, J. E. See Latimer, W. M.
- Ahlmann, N., [indirect] heating or cooling of [divided] solid substances, (P.), B., 885.
- Ahlrichs, J. W. See Scheringa, K.
- Ahlström, L. See Fischer, H. O. L.
- Ahlum, C. C. See Du Pont de Nemours & Co., E. I.
- Ahmad, B., a diatom (*Nitzschia closterium*, W. Sm.) as a source of vitamin-A, A., 1321.
- Ahmad, B., and Drummond, J. C., relative vitamin-A value of the body and liver oils of certain fish, A., 379.
- Ahrens, P., and Harzer Achsenwerke Ges.m.b.H., producing a [rubber] coating stable towards acids and alkalis on metallic articles, (P.), B., 618*.
- Ahrens, P. See also Harzer Achsenwerke Ges.m.b.H. Bornum am Harz.
- Ahrens, W., phonolites and trachytes of the Laacher See district, A., 733.
- Ainley, A. D., and Challenger, F., boron-carbon linking. I. Oxidation and nitration of phenylboric acid, A., 1457.
- Ainscow, J. W. H., extraction of products from carbonaceous materials, (P.), B., 448.
- Ainstein, I., preparation of organic articles for electrolytically covering them with a metallic layer, (P.), B., 869.
- Air Reduction Co., Inc., production of scale-free welded tubing, (P.), B., 953.
- "Airosana" Troekeninhalations-Ges.m.b.H., apparatus for vaporising chemicals [e.g., medicaments] in rooms [for inhalation purposes], (P.), B., 793.
- Aische, M. J., reclamation of [used] plaster of Paris, (P.), B., 375.
- Aitken, H. A. A., sulphur in organic and inorganic combination in pasture grasses, A., 824.
- determination of iodine in blood, A., 1463.
- Aitken, J. E., china clay, B., 558.
- Ajax Electrothermic Corporation. See Northrup, E. F.
- Ajax Metal Co., and Neuhauss, H., fusing coatings to metal sheets, (P.), B., 1077.
- Akabori, S., synthesis of iminazole derivatives from α -amino-acids. I. Synthesis of β -iminazolypropionic acid, A., 1297.
- Akabori, S., and Saito, K., catalytic transference of hydrogen between organic compounds. II, A., 1192.
- syntheses in the indole group. VIII. Harman and harmin, A., 1445.
- Akagi, S., relation to temperature of the viscosity of some protein solutions, A., 1118.
- Åkerlöf, G., activity coefficients of sodium, potassium, and lithium chlorides and hydrochloric acid at infinite dilution in water-methyl alcohol mixtures, A., 996.
- Akim, L. See Hess, K.
- Akimov, G. V., protecting light aluminium alloys from corrosion, B., 991.
- Akiyama, K. See Nagai, S.
- Akiyama, T., behaviour of blood-bilirubin following the injection of bilirubin solution, A., 812.
- Akker, J. A. van den. See Watson, E. C.
- Aktiebolaget Båsta. See Heijkenskjöld, G. O. W.
- Aktiebolaget Ferriconcentrat. See Mueller, H. A.
- Aktiebolaget Ferrolegeringar, production of iron alloys, (P.), B., 198.
- Aktiebolaget Filtrum, apparatus [automatic base-exchange softener] for treatment of liquids [water], (P.), B., 122.
- Aktiebolaget Karlstadt Mekaniska Verkstad, sulphur furnace, (P.), B., 189.
- Aktiebolaget Kemiska Patent, and Konstgodningsfabr. Aktieb. i Landskrona, manufacture of phosphoric acid and products containing phosphoric acid, (P.), B., 861, 987.
- Aktiebolaget Kemiska Patent. See also Nordengren, S. G.
- Aktiebolaget Practic Co., Ltd., material for improving baking processes, (P.), B., 165.
- Aktiebolaget Rudelins & Boklund, apparatus for pasteurising milk or other liquids, (P.), B., 838.
- Aktiebolaget Separator, cleaning the discs of centrifugal separators, (P.), B., 125.
- centrifugal separators, (P.), B., 223, 269, 307.
- centrifugal separator bowls, (P.), B., 307.
- cleaning of centrifugal bowls, (P.), B., 307.
- Aktiebolaget Separator, extraction of rubber from rubber latex, (P.), B., 384.
- centrifugal treatment of rubber latex, etc., (P.), B., 471.
- producing a pure rubber from rubber latex, (P.), B., 471.
- device for the purification of lubricating oil in centrifugal separators, (P.), B., 855.
- Aktiebolaget Separator-Nobel, Backlund, N. O., and Malm, K. G., removal of paraffins from fluid hydrocarbons, (P.), B., 854.
- Aktien-Gesellschaft Brown, Boveri & Co., combustion product power plant, (P.), B., 225.
- [vapour compression] evaporating plants, (P.), B., 306.
- vacuum measurement, (P.), B., 308.
- rotary refrigerators, (P.), B., 353.
- heat-exchange apparatus, (P.), B., 846.
- distillation of water, (P.), B., 1006.
- Aktien-Gesellschaft Brown, Boveri & Co. See also Faber, P., and Keller, G.
- Aktien-Gesellschaft für Chemische Industrie (in Liechtenstein). See Thalhofer, W.
- Aktien-Gesellschaft für Chemische Produkte. See Brit. Glues & Chemicals, Ltd.
- Aktien-Gesellschaft Cilander. See Müller, Hermann.
- Aktien-Gesellschaft A. Hering, purification of transformer and switch oils, (P.), B., 180.
- Aktien-Gesellschaft Kummel & Matter, evaporation of liquids, (P.), B., 87.
- electric heating units [for bakers' ovens, etc.], (P.), B., 955*.
- Aktien-Gesellschaft der Maschinenfabr. Escher Wyss & Co., heat-exchange apparatus, (P.), B., 398.
- Aktien-Gesellschaft für Mediz. Produkte, preservation of artificial and natural butter, (P.), B., 927.
- Aktien-Gesellschaft Metrum, metallic absorbing layer in electrical rectifying bulbs, (P.), B., 516.
- Aktien-Gesellschaft für Stickstoffdünger, manufacture of acetylene [from calcium carbide] and apparatus therefor, (P.), B., 47.
- preparation of active carbon, (P.), B., 449.
- preparation of highly active carbon, (P.), B., 597.
- manufacture of acetic anhydride, (P.), B., 705.
- Aktieselskabet Dansk Gaerings-Industri. See Simmer, F.
- Aktieselskabet de Forenede Bryggerier. See Lassen, F.
- Aktieselskabet Fisker & Nielsen, and Fisker, P. A., [compressed air] atomisers and powder blowers, (P.), B., 746.
- Aktieselskabet Krystal. See Jeremiasen, F.
- Aktieselskabet Malmindustri, condensation of zinc vapours, (P.), B., 106.
- Aktis Patent-Verwertungsges. m.b.H., and Uhlmann, A., degreasing and opening wool and other fibrous materials, (P.), B., 759.
- Akulov, N. S., law connecting different properties of ferromagnetic crystals, A., 141.
- evidence of the impossibility of spontaneous magnetisation, A., 1354.
- nature of remanence and [magnetic] hysteresis loss, A., 1506.
- Albanese, A., methylketolacetic [3-acetyl-2-methylindole- ω -carboxylic] acid and some of its derivatives, A., 619.
- existence, origin, and significance of the so-called lutein colloid, A., 1056.
- Alben, A. O., reactions of electrolysed humus and bentonite, B., 920.
- Alber, H. See Emich, F., and Jantseh, G.
- Alberene Stone Co. See Mahler, P.
- Albert, R., brown-carths as a transition stage of tropical red-carths and laterite, A., 1398.
- determination of exchange acidity in potassium chloride extracts of soils, B., 734.
- Alberto, A., analytical expression of van 't Hoff's rule, A., 283.
- stability of crystals and their heats of formation and solution, A., 296.
- dimensions of crystals formed in a viscous medium, A., 296.
- Alberts, W., metallurgical furnaces, (P.), B., 951.
- Albrecht, E. See Gen. Aniline Works, Inc.
- Albrecht, P. See Siemens-Schuckertwerke A.-G.
- Albright, C. L., hyperfine structures of some cadmium lines and the hypothesis of nuclear spin, A., 1489.
- Alcácer, J. N., improvement of the soldering of tramway cables, B., 1157.
- Alcock, A. W., and Ediger, N. J., influence of flour moisture on the Pekar test, B., 32.
- Alden, G. R., and Dennison Manufacturing Co., manufacture of coloured crêpe paper with insoluble dyes, (P.), B., 1106.
- Alder, H. See Schnette, H. A.

- Alder, K. See Diels, O., and I. G. Farbenind. A.-G.
- Aldis, R. W., and Philip, J. C., production of fog in the neutralisation of alkali with hydrogen halides. II. Significance of the presence of ammonia, A., 855.
- Aldous, A. G. See Walker, T. K.
- Aldridge, B. G. See Gard, E. W.
- Aleev, A. E., and Gerasimov, A. F., diffusion of sodium chloride and sulphate in concentrated gelatin gels, A., 857.
- Aleinikov, N. V., [sugar] juice of first and second carbonatations and optimal conditions in saturation, B., 634.
- Aleksandrov, I. A., physico-chemical principles underlying methods of testing the constancy of volume of Portland cement, B., 14.
- utilisation of chalk and pyrite residues from the manufacture of sulphuric acid, B., 371.
- cement from pyrites cinder, B., 511.
- Aleksandrov, T. G., and Shtamm, L. K., nitration of naphthalene to 1-nitronaphthalene, B., 980.
- Alekseeva. See Alexeeva.
- Alekseevski. See Alexeevski.
- Alemite Corporation. See Otis, J. E., jun.
- Aleschin, S. N., determination of the adsorption capacity [of soils], B., 1000.
- Alessandrini, M. E. See Marotta, D.
- Alexa, G. See Otin, C.
- Alexa, V. See Rădulescu, D.
- Alexander, B. See Thompson, W. O.
- Alexander, (Mrs.) C. C., egg-preserving compositions, (P.), B., 530.
- Alexander, E., and Herrmann, K., theory of liquid crystals, A., 21, 981.
- Alexander, H., furnaces for briquetting small coal, etc., (P.), B., 1100.
- Alexander, H., and Greene, J. A., manufacture of briquettes, fire-lighters, and other consolidated fuels, (P.), B., 891.
- Alexander, H. H., metallurgy of metals; [refining of copper], (P.), B., 565*, 1077.
- Alexander, J. R. See Hopper, I. V.
- Alexander, L. T., dispersion and mechanical analysis of certain soils high in sesquioxides, B., 920.
- Alexander, L. T. See also Olmstead, L. B.
- Alexander, N. S., J-phenomenon in X-rays, A., 391.
- Alexander, P. P. See Brit. Thomson-Houston Co., Ltd., and Gen. Electric Co.
- Alexandrov, V., reflexion of electron waves at thin sheets, A., 392.
- power of reflexion and reflexion polarisation of electron waves, A., 392.
- rapid determination of free sulphur by means of silver, A., 1263.
- Alexeev, A. I., action of physical factors on the catalase of blood, A., 360.
- Alexeev, A. I., Rüssinova, K. I., and Jaroslavzev, A. N., intensity of action of the catalase of blood, A., 102.
- Alexéev, D., and Avanesov, D., reaction between hydrogen and oxygen, A., 424.
- Alexeev, P. See Zaykovsky, T.
- Alexeeva, M. V. See Pamfilov, A. V.
- Alexeevski, E. V., influence of the temperature of ignition of alumina on its adsorptive power with respect to the products of the reaction of dehydration of alcohols, A., 851.
- chemical conception of adsorption phenomena, A., 1108.
- preparation of an active palladium catalyst for commercial use, B., 717.
- Alexeevski, E. V., and Musakin, A. P., influence of various chemical and physical factors on the activity of charcoal. II., A., 851.
- Alexeevski, K. V., and Pikazin, Y. S., determination of halogens in organic compounds, A., 1460.
- Alexi, C., continuous "unit" rotary filters in the chemical industry, B., 931.
- Alferov, M. I., and Brodski, A. I., solubility of benzoquinhydrone in aqueous-alcohol mixtures, A., 285*.
- Alföldy, Z. von. See Belák, A.
- Alfredo, R., uricemia in diabetes mellitus, A., 1611.
- blood-lactic acid in renal insufficiency, A., 1612.
- Alfuss, W. See Dillthey, W.
- Algar, J., and Boylan, M., azo-dyes derived from 4:6-diaceto-resorcinol, A., 918.
- Algar, J., and Flaegel, A. V., action of Grignard reagents on phthalide, A., 912.
- Algemeene Norit Maatschappij. See Sauer, J. N. A.
- Ali-Cohen, E. S., manufacture, from latex, of an artificial gutta-percha and a non-hygroscopic rubber, (P.), B., 158*.
- Alimarin, I. P., detection of small quantities of fluorine in silicate minerals and rocks, A., 1143.
- Alimarin, I. P. See also Viskont, K. I.
- Alinari, E., eutectic mixtures of alcohols and acetic esters, B., 600.
- Alinder, H. See Shipley, G. B.
- Alison, A., removal of water during concentration, B., 1095.
- Alissova, Z. P. See Ivanov, S.
- Aliverti, G., determination of humidity, B., 744.
- Allaire, H. See Vaudin, L.
- Allam, F., influence of electrolytes on the dispersion of clays, A., 690.
- Allan, A. G. H. See Dodds, E. C.
- Allan, F. E., and Wishart, J., method of estimating the yield of a missing plot in field experimental work, B., 878.
- Allan, H. L., Moore, J., and Burmah Oil Co., Ltd., [paraffin] wax sweating and crystallising apparatus, (P.), B., 599.
- Allan, J. See Liverpool Refrigeration Co., Ltd.
- Allan, J. A., salt and gypsum in Alberta, A., 1156.
- Allan, M. P. See Pratolongo, U.
- Allard, J. See Dupont, G.
- Allardt, H. G. See Schoeller, W.
- Allardye, J., determination of cholesterol in blood, A., 1463.
- Allardye, J., Fleming, R. H., and Clark, R. H., blood normals for cattle; some pathological values, A., 1463.
- Allbright-Nell Co. See Jordan, R. E.
- Allichin, L. J. See Imperial Chem. Industries, Ltd.
- Allegheny Steel Co. See Curry, L. R., and Winder, F. J.
- Allemeyer, critical considerations of fertiliser practice and crop yields in German agriculture, B., 923.
- Allen, A. W., production of clear leach liquors, (P.), B., 905.
- Allen, C., azotropic data for calculating general properties of binary systems, A., 987.
- Allen, C. See also Randall, M.
- Allen, C. F. H., identification of carbonyl compounds by use of 2:4-dinitrophenylhydrazine, A., 1174.
- Allen, C. F. H., and Herrmann, E. F., bromination of desylacetophenone, A., 217.
- Allen, C. F. H., and Hubbard, J. R., diacylstyrenes. II., A., 346.
- Allen, C. F. H., and Kimball, R. K., [preparation of] α -phenyl- β -benzoylpropionitrile, A., 773.
- Allen, E. V., and Page, I. H., hemolytic component of phenylhydrazine hydrochloride, A., 361.
- Allen, E. V. See also Page, I. H.
- Allen, F. B., crushing and disposal of furnace residues and other solid materials, (P.), B., 352.
- Allen, F. J., and Moore, R. B., [m. p. of] krypton and xenon, A., 1508.
- Allen, F. L., effect of sodium salts of monohydroxy-acids on rate of saponification of methyl acetate by sodium hydroxide, A., 1258.
- crystallisation of massecuites, (P.), B., 1127.
- Allen, F. L. See also Kopke, E. W.
- Allen, H. S., Raman lines in the spectrum of the electric discharge, A., 15.
- Allen, J., jun., and Buck, J. S., papaverine; attempted Rügheimer synthesis, A., 353.
- Allen, J. F. See McLennan, J. C.
- Allen, N., determination of small amounts of hydrogen peroxide and of ozone, B., 372.
- Allen, N. P., influence of gases on the soundness of copper ingots, B., 422.
- Allen, R. H. See Clean Coal Co., Ltd.
- Allen, R. P., making micro-sections of rubber stocks, B., 918.
- Allen, S. G. See Davis, F. W., and Davis, J. W.
- Allen, S. J. M., alternating-current rectifying element, (P.), B., 672.
- Allen, T., [consumable] liquor cooling apparatus, (P.), B., 301.
- Allen, V. T., triassic bentonite of the painted desert, A., 569.
- Allen, W. F., determination of caffeine in decaffeinated coffee, B., 838.
- Allen, W. H., and Leather Makers' Process Co., treatment of skins or hides previous to tanning, (P.), B., 523.
- Allen, W. H., and Parker Rust Proof Co., rustproofing process, (P.), B., 20*.
- rustproofing of iron and steel articles, (P.), B., 63.
- chemical apparatus; [precipitation tanks], (P.), B., 747.
- Allen, W. S. See Gen. Chem. Co.
- Alley, O. E. See Walker, B. S.

- Allgemeine Elektrizitäts Gesellschaft, burner for pulverulent or gaseous fuels, (P.), B., 451.
- Allgemeine Elektrizitäts Gesellschaft, and Paschkis, V., apparatus for rapid heating of electrical salt-bath furnaces, (P.), B., 201.
- Allgemeine Elektrizitäts Gesellschaft. See also Internat. Gen. Electric Co., Inc.
- Allgemeine Gesellschaft für Chemische Industrie m.b.H., continuous treatment of hydrocarbons with liquid sulphur dioxide, (P.), B., 312.
- apparatus for evaporating and recovering sulphurous acid from mixtures of hydrocarbons and sulphur dioxide, possessing a large excess of sulphur dioxide, (P.), B., 407.
- refining of heavy mineral oils by means of liquefied sulphurous acid, (P.), B., 979.
- Allgemeine Gesellschaft für Chemische Industrie m.b.H. See also Cattaneo, G., and Jodeck, P.
- Allgemeine Vergasungs-Gesellschaft m.b.H., gasification of earthy, moist, raw, brown coal, without ammonia recovery, (P.), B., 131.
- shaft furnace for production of low-temperature tar, (P.), B., 312.
- Alliance Artificial Silk, Ltd., Yates, W. H., and Black, J. A., filter presses, (P.), B., 1096.
- Allin, (Miss) E. J. See McLennan, J. C.
- Alliott, E. A., and Manlove, Alliott & Co., Ltd., washing machines, (P.), B., 1064.
- [tumbler] drying apparatus [for fabrics], (P.), B., 1107.
- Allis-Chalmers Manufacturing Co., and Newhouse, R. C., comminuting mills, (P.), B., 932.
- Allis-Chalmers Manufacturing Co. See also Marsh, A. M., and Newhouse, R. C.
- Allison, F., and Murphy, E. J., magneto-optic method of chemical analysis, A., 1541.
- Allison, F. E., can nodule bacteria of leguminous plants fix atmospheric nitrogen in the absence of the host? B., 258.
- Allison, F. E., and Morris, H. J., nitrogen fixation by blue-green algae, A., 827.
- Allison, J. B. See Cole, W. H., and Daughenbaugh, P. J.
- Allison, S. K., and Williams, J. H., fine structure and the wavelength separation of the $K\beta$ doublet in the molybdenum X-ray spectrum, A., 390.
- resolving power of calcite for X-rays and the natural widths of the molybdenum $K\beta$ doublet, A., 1079.
- Allison, V. C., heat transfer in the low-temperature carbonisation of coal, B., 974.
- Allisson, F., oxidation-reductions with chlorophyll and other sensitizers, A., 1535.
- Allmänna Svenska Elektriska Aktiebolaget, [high-power] electric induction furnace, (P.), B., 245.
- Allmand, A. J., and Chaplin, R., sorption of carbon tetrachloride at low pressures by activated charcoals. II. Isothermals at 25°. III. Isosteres, A., 1513.
- Allmand, A. J., and Franklin, R. G., photochemical reaction between oxygen and hydrogen chloride, A., 1382.
- Allmand, A. J., Hand, P. G. T., and Manning, J. E., sorption of water vapour by activated charcoals. V. Charcoals extracted by alkali; resorption, lag or drift, hysteresis, A., 27.
- Allmand, A. J., Hand, P. G. T., Manning, J. E., and Shiels, D. O., sorption of water vapour by activated charcoals. IV. Isothermals in absence of foreign gases (static method), A., 27.
- Allmand, A. J., and Style, D. W. G., photolysis of aqueous hydrogen peroxide solutions. I. Methods. II. Results, A., 715.
- Alloy Welding Processes, Ltd., and Clarke, E. J., electrodes for electric arc-welding or soldering, (P.), B., 21.
- electrodes [with helical core] for electric arc-welding or soldering, (P.), B., 22.
- Alloy Welding Processes, Ltd., and La Soudure Electrique Autogène Société Anonyme, electrodes for electric arc-welding or soldering, (P.), B., 21.
- manufacture of saline flux coating compositions for use in soldering or welding, (P.), B., 914.
- Alloy Welding Processes, Ltd. See also Clarke, E. J.
- Allsopp, C. B. See Lowry, T. M.
- Almeida, E., and Almeida Accumulators, Ltd., [electrolyte for] secondary electric cells, (P.), B., 201.
- Almeida Accumulators, Ltd. See Almeida, E., and Levy, L. A.
- Almy, G. M., Zeeman effect in the OH bands, A., 1074.
- Almy, G. M., and Crawford, F. H., Zeeman effect in the MgH bands, A., 264.
- Alonso, A. See Gallas, G.
- Alonso, M. See Gallas, G.
- Alox Chemical Corporation. See Burwell, A. W.
- Alpern, D., and Tutkevitch, L., vegetative endocrine system as regulator of intermediate metabolism. I. Rôle of adrenaline in the regulation of the carbohydrates and fats of the blood, A., 253.
- Alpern, D., Tutkevitch, L., and Besuglov, V., vegetative-endocrine system as regulator of intermediary metabolism; rôle of adrenaline and the thyroid gland in regulation of the carbohydrate and fatty constituents of the blood, A., 961.
- Alphen, J. van, anisil. I. and II., A., 90.
- preparation of glucosamine hydrochloride, A., 199.
- [action of hydrazine hydrochloride on aromatic ketones]; anisil-ketazine, A., 214.
- dimorphism of 2:4-dinitroanisole, A., 337.
- nitration of 4:4'-dimethoxy- and 4:4'-diethoxy-benzophenones, A., 476.
- nitration of 4-methoxy- and 4-ethoxy-benzophenone, A., 603.
- ether and ester. I., A., 738.
- ether and ester. II. Formation of ether from alcohol, A., 1270.
- primary additive products in indirect substitution in the benzene nucleus; (nitration and bromination of 4:4'-dialkoxydiphenyls), A., 1284.
- ether and ester. III. Diethylene dioxide (dioxan), A., 1554.
- Alphen, P. M. van. See De Haas, W. J.
- Alpine Akt.-Ges. Eisengiesserei & Maschinenfabr., Alpine Maschinen-Akt.-Ges., and Kuhr, A., pneumatic separators, (P.), B., 645.
- Alpine Maschinen-Akt.-Ges. See Alpine Akt.-Ges. Eisengiesserei & Maschinenfabr.
- Alquier, J., Asselin, (Mlle.) L., Kogane, (Mlle.) M., and De Sacy, (Mlle.) G. S., variations in mineral composition of bone in normal and rachitic rats and in rats cured of rickets, A., 366.
- Alsa Société Anonyme, manufacture of textile fibres, (P.), B., 318.
- Alsina, F. D., relation between changes in the alkali reserve and relative chlorine and sodium content of the blood in experimental immobilisation of intestine and in histamine shock, A., 366.
- Alsterberg, G., catalysis by nitrous acid of the reaction between oxygen and hydrogen iodide and a method for the determination of oxygen, A., 302.
- Alt, H. L., inhibition of respiration by hydrocyanic acid, A., 1059.
- Alter, C. M., and Mathers, F. C., chromium-plating experiments, B., 149.
- Alterthum, H. See Gen. Electric Co.
- Althausen, T. L., Gunther, L., Lagen, J. B., and Kerr, W. J., modification of the dextrose tolerance test as an index of metabolic activity of the liver, A., 1470.
- Althoff, F. W. See Berl, E.
- Alton Barium Products Co. See Bonnington, A.
- Altschuller, M. M. See Koldayev, B. M.
- Aluminium-Ind. Akt.-Ges., age-hardening aluminium alloys, (P.), B., 465.
- Aluminium, Ltd., moulds for casting metals, (P.), B., 465, 1116.
- Aluminium, Ltd., Archer, R. S., and Kempf, L. W., aluminium-base alloys, (P.), B., 1034.
- Aluminium Co. of America. See Archer, R. S., Franz, F. C., Petrey, A. W., Stay, T. D., Welty, G. D., and Winter, W. C.
- Aluminium Solder Corporation of America. See Geisel, K.
- Alvarez, W. C. See Childrey, J. H.
- Alvir, A. D., antamokite, a new gold silver telluride, A., 448.
- Alvord, E. B. See Grasselli Chem. Co.
- Alwall, N., enzymic formation of L-malic from fumaric acid, A., 1215.
- specificity of the dehydrogenase of succinic acid and glycerophosphoric acid, A., 1473.
- Alway, F. J., and Nesom, G. H., protein content of reed canary grass on peat soils, A., 826.
- Alyea, H. N., capillary gas valve, A., 884.
- chain reactions produced by light and by α -radiation, A., 1136.
- Alyea, H. N., and Haber, F., ignition of hydrogen-oxygen mixtures at low pressures by heated quartz, A., 1255.
- ignition of electrolytic gas [$2H_2 + O_2$] by quartz or porcelain, under reduced pressure, A., 1528.
- Alyea, H. N., and Lind, S. C., synthesis of carbonyl chloride by light and by α -radiation, A., 871.
- Amagat, (Mlle.), action of sodamide on [β -phenyl- β -alkylethyl] bromides, A., 759.
- Amann, A., and Chemische Fabrik K. Albert G.m.b.H., manufacture of reaction products of natural and phenolic resins, (P.), B., 204.

- Amatatsu, R. See Komatsu, S.
- Amard, L., and Schmid, F., comparative determination of urea in urino and in blood by the hypobromite and urease methods, A., 630.
- Ambarzumian, V., quantitative spectral analysis of the sun's atmosphere, A., 513.
- theory of absorption lines in stellar atmospheres, A., 513.
- Ambarzumian, V., and Ivanenko, D., unobservable electrons and β -rays, A., 516.
- avoidance of the infinite singularity at an electron, A., 1335.
- Amberg, C. R. See Clark, G. L., and Parmelee, C. W.
- Amberson, W. R. See Klein, H.
- Ambert, P. See Fleury, P.
- Ambler, H. R., sources of error in the determination of hydrogen in gases, B., 816.
- Ambler, J. A., simple proof of the stereochemical configurations of *d*-glucose and of *d*-galactose, A., 1560.
- absorption of atmospheric oxygen by limed cane juice, B., 785.
- Ambros, O., and Münch, H., mechanism of urease action, A., 642.
- Ambrose, P. M. See Wiley, R. C.
- Amdur, I., and Hjort, E. V., microscope hot stage, A., 1152.
- Amelotti, L. See Sborgi, U.
- Amelung, H., growth and acid production of *Aspergillus niger* under water, A., 502.
- acid formation from raffinose by *Aspergillus niger*, A., 643.
- Amende, J. See Arndt, F.
- American Air Filter Co., Inc. See Birkholz, H. E.
- American Anode, Inc. See McKay, R. F.
- American Bemberg Corporation. See Windelmann, H.
- American Bitumuls Co. See Braun, C. A.
- American Brass Co. See Bassett, W. H.
- American Cast Iron Pipe Co. See Barr, C. D., and Moore, W. D.
- American Chain Co., Inc. See Pitschner, K., and Schlossberg, J. B.
- American Chemical Paint Co. See Gravell, J. H.
- American Coalinoil Corporation, stabiliser for fuel suspensions, (P.), B., 891.
- American Cyanamid Co. See Barsky, G., Buchanan, G. H., Christmann, L. J., Cox, G. E., and Romieux, C. T.
- American Dressler Tunnel Kilns, Inc. See Meehan, P. A.
- American Engineering Co., [boiler] furnaces, (P.), B., 39.
- furnace walls [with fluid-cooled panels], (P.), B., 87.
- furnace walls, (P.), B., 539.
- [fluid-cooled] furnace side walls, (P.), B., 1051.
- American Engineering Co. See also Bowden, W. I., and Harrison, C. E.
- American Foundry Equipment Co., and Peik, L. D., tumbling mills, (P.), B., 1096.
- American Gasaccumulator Co. See Dalén, G.
- American Glue Co. See Campbell, C. H.
- American Hair & Felt Co., apparatus for treating hair, feathers, etc. [with ozonised air], (P.), B., 860.
- deodorising hair, feathers, etc. [by means of ozone], (P.), B., 945.
- American Lead Pencil Co. See Goldsmith, B. B.
- American Lurgi Corporation. See Job, W., and Lay, E.
- American Machine & Foundry Co., coating of metals [iron, steel, and copper] with metals [lead alloys], (P.), B., 64.
- treatment of tobacco, (P.), B., 532.
- soldering and metal-coating lead alloy, (P.), B., 1115.
- American Machine & Foundry Co. See also Carpenter, E. P., and Hawkins, W. J.
- American Metal Co., Ltd., melting and refining of copper, (P.), B., 914.
- American Mond Nickel Co., heat-treatment of metallic products [nickel or cupronickel] for bright annealing, etc., (P.), B., 198.
- American Nuplax Corporation. See Homberg, F.
- American Paint Co. See Gravell, J. H.
- American Pine Products Corporation. See Schaffer, J. C.
- American Potash & Chemical Corporation, production of calcined borax, (P.), B., 818.
- borax product and its production, (P.), B., 818.
- American Potash & Chemical Corporation. See also Gale, W. A., and Ritchie, C. F.
- American Powder Co. See Borland, C. R.
- American Pulverizer Co. See Elzemeyer, E. H.
- American Rolling Mill Co. See Nead, J. H., Sauveur, A., and Wehr, E. R.
- American Rubber Co. See Hopkinson, F., and Teague, M. C.
- American Sheet & Tin Plate Co. See Holden, J. H., and McArthur, A. R.
- American Smelting & Refining Co. See Betterton, J. O., Hall, A. E., Labbe, A. L., MacMichael, H. R., O'Harra, B. M., Perkins, M. F., Rathburn, R. B., Slagle, E. A., Wagstaff, R. A., and York, H. W.
- American Society for Testing Materials, tentative standards, B., 536.
- American Solvent Recovery Corporation. See Barnebey, O. L.
- American Steel Foundries. See Hamilton, W. C.
- American Steel & Wire Co. of New Jersey. See Tångring, O.
- Ames, O. C. See Pagel, H. A.
- Amiesite Asphalt Co. of America. See Sadtler, S. S.
- Amme, F., tubular filters for air and gases, (P.), B., 932.
- Ammermann, E., and Kornfeld, H., relation between α -veining and the A3 transformation point, B., 147.
- Ammon, R., stereochemical specificity of the esterases, A., 1065.
- Ammon, R. See also Rona, P.
- Amos, A. J. See Herd, C. W., and Kent-Jones, D. W.
- Amoureux, G. See Berthelot, A.
- Ampt, G. A., analysis of red lead, B., 917.
- Amsbacher, S. See Cherbuliez, E.
- Amstell, S. See Jones, D. C.
- Amstutz, K. L. See Marvel, C. S.
- Anan, S., comparative experiments on the influence of *l*- and *dl*-adrenaline and adrenalone on the blood[sugar] picture of rabbits, A., 1068.
- Anand, C. See Seth, J. B.
- Anciens Établissements Mille Pourcel Velut, heat exchanger, (P.), B., 536.
- Anciens Établissements A. Savy, Jeanjean & Cie. Société Anonyme. See Guggenheim, M. M.
- Andant, A., and Lecomte, J., spectral emission of mercury arcs in quartz, A., 511.
- Andauer, M., variations in potential at a metal-air boundary, A., 165.
- Andersen, A. P., crusher heads for homogenising apparatus, (P.), B., 745.
- Andersen, C. C. See Freudenberg, K.
- Andersen, G. F., and Weltha Process Corporation, working natural sodium sulphate deposits, (P.), B., 711.
- Andersen, H. P. See Howells, H. P.
- Anderson, A. K. See Parsons, C. S.
- Anderson, Arthur K., Honeywell, H. E., Santy, A. C., and Pedersen, S., composition of normal rat blood, A., 629.
- Anderson, A. P. See Anderson Puffed Rice Co.
- Anderson, C. D., space-distribution of X-ray photo-electrons ejected from the *K* and *L* atomic energy levels, A., 972.
- Anderson, C. G. See Hibbert, H.
- Anderson, C. T., heat capacities of arsenic, arsenic trioxide, and arsenic pentoxide at low temperatures, A., 1103.
- heat capacity of silicon at low temperatures, A., 1103.
- heat capacities at low temperatures of antimony, antimony trioxide, antimony tetroxide, and antimony pentoxide, A., 1103.
- heat capacities of bismuth and bismuth trioxide at low temperatures, A., 1103.
- Anderson, E., and Crowder, J. A., composition of an aldobionic acid from flaxseed mucilage, A., 1408.
- Anderson, E. A. See New Jersey Zinc Co.
- Anderson, H. O. See Rockbestos Products Corp.
- Anderson, I. A., and Macleod, J. J. R., glycogen of mammalian muscle and its behaviour after death, A., 1464.
- Anderson, J., and Heffernan, T. D., cleansing preparation, (P.), B., 142.
- Anderson, J. A., electrolytic separation of α -amino-acids in protein hydrolysates, A., 1197.
- Anderson, J. A. See also Newton, R.
- Anderson, J. M., duration of metastable states, A., 511.
- Anderson, J. S., vapour pressure of nickel carbonyl, A., 1104.
- Anderson, L. J. See Stephens, F. G. C.
- Anderson, P. A., electromotive behaviour of single zinc crystals; equilibrium potential, A., 545.
- Anderson, P. J. See Bailey, E. M.
- Anderson, R., apparatus for separating comminuted matter, (P.), B., 1008.
- Anderson, R. J., lipins of tubercle bacilli. VII. Soft wax. VIII. Unsaponifiable wax. IX. Hexacosic acid in unsaponifiable wax, A., 252.
- lipins of tubercle bacilli. XIV. Occurrence of inositol in the phosphatide from human tubercle bacilli, A., 819.

- Anderson, R. J., and Chergaff, E., lipins of tubercle bacilli. V. Acetone-soluble fat. VI. Tuberculostearic and phthioic acids, A., 252.
lipins of tubercle bacilli. XVI. Composition of the total extractable fat. XVII. Occurrence of an unsaturated hexa-cosoic acid in the fat. XVIII. Polysaccharide from the lipins, A., 1478.
- Anderson, R. J., and Renfrew, A. G., lipins of tubercle bacilli. XIII. Occurrence of mannose in the phosphatide from human tubercle bacilli, A., 819.
- Anderson, R. J., and Roberts, E. G., lipins of tubercle bacilli. X. Lipin fractions from avian tubercle bacilli. XI. Phosphatide fraction from avian tubercle bacilli. XII. Lipin fractions from bovine tubercle bacilli, A., 377.
- Anderson, Robert J., and Fairmont Manufacturing Co., treating aluminium with halogen gases, (P.), B., 953.
- Anderson, W., relation between the gas pressure and the translational energy of the gas molecules, A., 25, 1076.
polarisation, light scattering, photo-effect, and Compton effect on the tubes of force theory of light quanta, A., 655.
- Anderson, W. E. See Reed, L. L., and Yamaguchi, F.
- Anderson, W. T., jun., Bird, L. F., and Hanovia Chemical & Manufacturing Co., securing good electrical contact with crystalline cuprous oxide, (P.), B., 429*.
forming copper-copper oxide rectifier plates, (P.), B., 870*.
- Anderson Puffed Rice Co., and Anderson, A. P., process and apparatus for production of puffed [food] product, (P.), B., 81.
- Anderson & Sons, Ltd., D. See Child, R. O.
- Anderssen, F. G., seasonal changes in the tracheal sap of pear and apricot trees, A., 825.
- Andersson, W. See Hedvall, J. A.
- Andes, E. C. See MacDonald, M. B.
- Andô, N. See Tamaru, S.
- Andrade, E. N. da C., viscosity of liquids, A., 535.
projection model to illustrate the passage of an α -particle in the neighbourhood of an atomic nucleus, A., 568.
- Andraschko, E. See John, H.
- André, A., luminous enamels and their application, (P.), B., 820.
- André, E., and Canal, H., liver oil from a young male shark "pèlerin" (*Cetorhinus maximus*, Günner); biological relations between the cholesterol and squalene, B., 23.
marine animal oils; oil of *Centrophorus granulosus*, Müller and Henlé; comparative study of unsaponifiable matter taken from the egg, the fetus liver, and the liver of adult animals, B., 24.
- André, H., non-corrodible alloy, (P.), B., 379.
electrochemical electric current rectifiers, (P.), B., 1035.
- Andreasen, A. H. M., relation between particle distribution and space in loose-grained products, A., 540.
- Andreasen, A. H. M. [with Jensen, W., and Lundberg, J. J. V.], apparatus for dispersoid analysis and some experiments, A., 31.
- Andreasen, A. H. M., and Lundberg, J. J. V., grinding capacity of flint-ball mills, B., 969.
- Andreatta, C., bianchito, A., 1397.
- Andreev, K. See Dserschkovitch, A. A., and Günther, P.
- Andreev, N. N., Kudrjavev, N. A., and Stessel, T. A., application of the photo-electric effect to the determination of the relation between number of particles, particle size, and magnitude of light dispersion. I., A., 1115.
- Andréevski, I. A. See Kurakov, N. S.
- Andreiev, P., and Gavrilov, A., colorimetric determination of turpentine in air, B., 26.
- Andrieva, E. V., electric charge and velocity of infusoria *Paramacium caudatum*, A., 859.
- Andreitcheva, M., biological chemistry of zinc, A., 634.
- Andrés, L. See Rollet, A. P.
- Andress, K. R., X-ray diagram of mercerised cellulose, A., 280.
- Andrew, R. L., determination of minute amounts of iodine in soils and waters, B., 579.
- Andrew, T., air filtering, heating, humidifying, and similar apparatus, (P.), B., 695.
- Andrewes, (Miss) U. See Richardson, O. W.
- Andrews, A. I., development of acid-resisting, white, sheet-steel enamels, B., 767.
systematic method for the investigation of sheet-iron enamels, B., 819.
acid-resisting, white, dry-process cast-iron enamels, (P.), B., 947.
- Andrews, A. I., and Hertzell, E. A., progress report on effect of furnace gases on quality of enamels, B., 946.
- Andrews, C. E. See Canon, F. A.
- Andrews, C. W., and Chapman, W. B., method of generating gas, (P.), B., 937.
- Andrews, D. H., relation between the Raman spectra and the structure of organic molecules, A., 1345.
nature of extramolecular forces, A., 1349.
- Andrews, D. H. See also Kettering, C. F., and Southard, J. C.
- Andrews, F. W., and Frigidaire Corporation, [lead] alloys [for packing joints], (P.), B., 953.
- Andrews, J. C., deamination of cystine, A., 1170.
- Andrews, J. C., and Wyman, P. D., mercury derivatives of cysteine, A., 1026.
- Andrews, J. C. See also Miller, H. K.
- Andrews, L. T., and Squibb & Sons, E. R., stable effervescent composition, (P.), B., 1109.
- Andrews, L. V., and Riley Stoker Corporation, pulverising apparatus, (P.), B., 1135.
- Andrews, R. S. See Broadhead, C. F.
- Andrews, W. See Imperial Chem. Industries, Ltd.
- Andriessens, H. See Soc. of Chem. Ind. in Basle.
- Andrieux, L., electrolysis of metallic oxides dissolved in fused boric acid and in fused borates (tungsten, molybdenum, zinc), A., 45.
preparation and properties of the borides of tantalum and of niobium, A., 178.
electrolysis of metallic oxides dissolved in boric anhydride and in fused borates; preparation of amorphous boron, borides, and some metals, A., 305.
preparation of thallium by electrolysis, A., 715.
- Andrieux, P. J. J., and Société Générale des Chaux et Ciments, burners for gaseous, liquid, or powdered solid fuel, (P.), B., 704.
- Andronikova, N. N. See Teletov, J. S.
- Anemostat, Ltd., and Hirschberg, L. M., mixing or separating apparatus, (P.), B., 223.
devices for distributing air or other gases; apparatus for separating solid substances from gases, (P.), B., 799.
- Angelescu, E., and Comănescu, V. N., adsorption in solvent mixtures. II., A., 407.
- Angelescu, E., and Manolescu, O., influence of neutral salts on the hydrolysis of starch in the presence of inorganic acids, A., 583.
- Angelescu, E., and Mirescu, J., influence of temperature on the blue coloration given by iodine in the presence of starch, A., 584.
- Angelescu, E., and Popescu, D. M., systems soaps-cresol-water, A., 692, 856.
colloidal properties of systems soaps-o-cresol-water, A., 1366.
- Angeletti, A., attempts to synthesise disubstituted derivatives of naphthalene, A., 212.
- Angeletti, A., and Cerruti, C. F., action of certain moulds on solutions of aldoses. I., A., 1620.
- Angeli, A., pyrrole blacks, A., 933.
structure of diazo-compounds, A., 1032.
relationships between constitution and odour, A., 1064.
constitution and reactions of the isomeric diazohydrates (diazohydroxides), A., 1428.
- Angeli, A., and Jolles, Z., reduction of normal diazohydrates, A., 205.
oxidation processes determined by normal diazohydrates, A., 467.
- Angeli, A., and Polverini, A., oxidising power of diazohydrates and their analogies with nitrous acid, A., 906.
- Angell, F. G., Drew, H. D. K., and Wardlaw, W., interpretation of the isomerism amongst co-ordination compounds of platinum, A., 559.
- Angell, F. G., James, R. G., and Wardlaw, W., complex bromides of quinquivalent molybdenum, A., 48.
- Angell, H. R., Walker, J. C., and Link, K. P., relation of proto-catechuic acid to disease resistance in the onion, A., 1224.
- Angell, H. R. See also Walker, J. C.
- Anger, J. R., effecting intimate contact between gases and liquids, (P.), B., 799.
- Angermann, M., and Bielschowsky, F., nuclein metabolism. XXV. Specificity of Dische's colour reactions with diphenylamine and carbazole on the purine- and pyrimidine-nucleosides of thymus-nucleic acid, A., 1464.
- Angermann, M. See also Thannhauser, S. J.
- Angern, O. See Pfeiffer, P.
- Anglada, J. P. de G., dyeing apparatus, (P.), B., 610.
- Anglo-American Chemical Co., Ltd., and Gourvish, C. M., electrical [dry] battery, (P.), B., 336.

- Anglo-Chilean Consolidated Nitrate Corporation. See Gleason, G. H.
- Anglo-Persian Oil Co., Ltd., and Dunstan, A. E., treatment of vapours produced by cracking hydrocarbons, (P.), B., 599.
- Anglo-Persian Oil Co., Ltd., Dunstan, A. E., and Wheeler, R. V., treatment of hydrocarbon gases, (P.), B., 650.
- Anglo-Persian Oil Co., Ltd., Holley, A. E., and Mott, O. E., washing or treatment of liquids with other liquids [of different sp. gr.], (P.), B., 40.
- Anglo-Persian Oil Co., Ltd. See also Thole, F. B.
- Angus, W. R. See Bailey, C. R.
- Anheuser-Busch, Inc. See Bratton, G. S.
- Anissimov, N. See Saldau, P. Y.
- Annau, E., structure of simple nucleic acids, A., 1307.
- Annau, E. See also Simon, A.
- Anode Rubber Co., Ltd., manufacture of rubber goods, (P.), B., 918.
- Anode Rubber Co., Ltd., and Newton, E. B., purification of aqueous dispersions [e.g., rubber latex], (P.), B., 626.
- Anode Rubber Co., Ltd., and Szegvari, A., removal of water from deposits formed from aqueous dispersions of rubber or similar vegetable resins, (P.), B., 70.
- continuous removal of agglomerates from rubber dispersions, etc., (P.), B., 70.
- Anode Rubber Co., Ltd. See also Szegvari, A.
- Anosov, V. Y., form of the property curves in binary systems in the formation of an undissociated compound, in which the given property is expressed in an ideal system by a straight line, A., 680.
- relation between the molar and weight concentration curves for the same property of a binary system, A., 680.
- relation between the curves for reciprocal properties of binary systems, A., 680.
- relation between temperature coefficients of reciprocal properties, A., 680.
- Anschütz, L., and Wenger, F., valency problem of the quinquevalent electronegative phosphorus atom. I., A., 1429.
- Anselm, F., instrument for colorimetric analysis, A., 54.
- Anselmi, S., and Calò, A., determination of small quantities of active chlorine in purified water, B., 1170.
- Anselmier, H., rapid staining of the cilia of the *Ciliata*, A., 1220.
- Anselmino, K. J., improvement of Dische and Laszlo's method for determination of lactic acid, A., 1224.
- Anslow, W. K., and King, Harold, synthesis of glycine, A., 73.
- Anson, M. L., and Mirsky, A. E., protein coagulation and its reversal; preparation of completely coagulated hemoglobin, A., 102.
- protein coagulation and its reversal; preparation of insoluble globin, solublo globin, and hem, A., 630.
- reactions of cyanide with globin-hemochromogen, A., 1461.
- Anson, M. L. See also Mirsky, A. E.
- Antelmann, H. See Rosenheim, A.
- Anthony, A. J., adrenaline therapy, A., 378.
- gas-analysis technique, A., 1485.
- Anthony, R. D., ammonium sulphate and sodium nitrate in a sod orchard, B., 1082.
- Anthony, T. P., cupola furnace, (P.), B., 1033.
- Antipov-Karataev, I. N., application of filtration analysis in the investigation of factors determining the dispersity of soils, B., 1123.
- Antonov, S. M., solubility of phosphoric acid compounds in certain soils, B., 579.
- Antropoff, A. von, and Falk, E., m. p. of calcium and the system calcium-calcium nitride, A., 699.
- Aockerblom, O. See Gewerkschaft Gustav.
- Aoi, S., colorimetric determination of urea [in serum or urine], A., 1485.
- Aoki, K. See Matsumura, S., and Sueyoshi, Y.
- Aono, T., chemical changes under a strong electric field, A., 1135.
- Aoyama, S., saponin of *Camellia sasanqua*, Thunb., A., 1440.
- Apablaza, J. V., and Salisbury, O. J., treatment of filtering materials [e.g., clays], (P.), B., 988.
- Apgar, F. A., and Sinclair Refining Co., refining of hydrocarbons, (P.), B., 48.
- Appareils et Evaporateurs Kestner, Société Anonyme, removal of liquid with or without solid particles therein from the surface of rotary drums transporting it, particularly in cooling apparatus, (P.), B., 398.
- purifiers for evaporating apparatus, (P.), B., 590.
- mixtures of nitrate of ammonia and nitrate of lime, (P.), B., 711.
- production of nitrate of lime, (P.), B., 862.
- Appelius, W., and Keigeloukis, L., differentiation of vegetable tannins by means of antipyrine-hydrochloric acid and the quartz lamp, B., 1041.
- Applebey, M. P., catalytic reactions at high pressures, A., 867.
- Applebey, M. P. See also Ferguson, J.
- Appleman, W. K. See Schmidt, C. L. A.
- Appleyard, E. T. S., excitation of light by low-voltage positive rays, A., 1082.
- Arakawa, I. See Tanaka, Y.
- Arakawa, S., stamping effect in [Japanese] coke manufacture, B., 541.
- Arakawa, S. See also Itano, A.
- Araki, T., and Kusagawa, M., viscosity and strength of the jelly and film of acetylcellulose, B., 1022.
- Araki, T., and Matsuno, T., water-resisting properties of glue and casein glue. I. and II., B., 831.
- Aranda, C. A. See Mazzeoco, P.
- Arando, V. G. See Bermejo, L.
- Arango, A. See Parga, I.
- Arbes, A. See Hüttig, G. F.
- Arbusov, A. E., camphor acetal, A., 611.
- Arbusov, A. E., and Arbusov, B. A., new method of preparing free radicals of the triarylmethyl series, A., 589.
- phosphonocarboxylic acids containing an asymmetrical phosphorus atom, A., 627.
- Arbusov, A. E., and Arbusov, I., phosphinic acids containing an asymmetrical phosphorus atom, A., 627.
- n*-butyl phosphite, A., 1555.
- Arbusov, A. E., and Kamai, G. X., preparation of thiophosphinic acids containing asymmetric phosphorus, A., 627.
- Arbusov, B. A., composition of turpentine and of turpentine and rosin oils from the Vakhtan factory, B., 469.
- menthenol from turpentine from the Vakhtan factory, B., 469.
- Arbusov, B. A., and Michailov, B. M., *d*- Δ^3 -carene oxide, A., 1044.
- oxidation of unsaturated compounds by peracetic acid, A., 1175.
- oxidation of *d*- Δ^3 -carene and α -pinene with benzoyl hydrogen peroxide and peracetic acid, A., 1294.
- Arbusov, B. A. See also Arbusov, A. E.
- Arbusov, I. See Arbusov, A. E.
- Arcand, A. See Achard, C.
- Archangelski, A. D., and Koptsheva, E. V., organic matter, phosphorus, and vanadium contents of Black Sea deposits, A., 1398.
- Archangelski, P. A. See Yanovski, V. V.
- Archbutt, S. L. See Hanson, D.
- Archer, R. S., and Aluminum Co. of America, forming articles from heat-treatable aluminium-base alloys, (P.), B., 720.
- Archer, R. S. See also Aluminium, Ltd.
- Archer Rubber Co. See Emery, H. W.
- Archibald, A., preparation or substance for use in the manufacture of bread, etc., (P.), B., 791.
- Archibald, R. C. See Evans, H. M.
- Archinard, (Mlle.) I. See Guye, C. E.
- Areiszwski, W., and Kopaczewski, W., buffering power of serum, A., 236.
- Arcturus Radio Tube Co., and Ruben, S., indirectly-heated cathodes for vacuum tubes, (P.), B., 1035.
- photosensitive cells, (P.), B., 1078.
- photo-electric cell, (P.), B., 1117.
- photo-electric cells [of condenser type], (P.), B., 1161.
- Arditti, R. See Dubrisay, R.
- Arends, B. See Ley, H.
- Arens, H., solarisation. I. Effect of bromide ions on solarisation. II. Dependence of solarisation on method of preparation of emulsion, B., 929.
- Arens, H., and Eggert, J., actinic power and spectrum temperature of the light of magnesium ribbon and flash powder, A., 1329.
- amount of metallic silver in unexposed photographic emulsions, and formation of nuclei, B., 1047.
- Arens, H., and Jessien, W., gravimetric determination of excess silver in photographic layers, B., 587.
- Arens, H., and Kipphan, K., solarisation. III. Silver content, covering power, grain distribution, and grain size in the region of solarisation, A., 1534.
- Arensburg, F. L., Jackman, A. J., Jones, C. L., and Vesuvius Crucible Co., refractory structure and article and method of forming the same, (P.), B., 510.
- Arenstam, J. J. See Dionne, M. J.
- Argaud, R. See Abelous, J. E.

- Argyle, W. R. See Kreisinger, H.
- Arii, K., vapour pressure of phosphorus oxychloride, A., 24.
- Ariyama, H., and Takahasi, Katuo, relative nutritive values of carbohydrate and related substances, A., 368, 1060.
- Arizona Minerals Corporation. See Lindsay, F. K.
- Arion Chemical Co. See John, R.
- Arkel, A. E. van, character of recrystallisation nuclei, A., 1506.
- Arkel, A. E. van, and De Boer, J. H., chemical combination as an electrostatic phenomenon. XIV. and XV., A., 18.
- Arkel, A. E. van, and Ploos van Amstel, J. J. A., impedance of crystal growth by slight deformation, A., 845.
- recrystallisation of stretched tin crystals, A., 846.
- Arkel, A. E. van. See also N.V. Philips' Gloeilampenfabr.
- Arlart, C. See Grimmer, W.
- Arledter, F., separation of solids from gases and liquids, (P.), B., 746.
- Arm, M. See Gossner, B.
- Armendt, B. F., and Adams, R., certain dialkylacetic acids containing 12, 13, and 14 carbon atoms and their bactericidal action towards *B. lepræ*. XVIII., A., 741.
- Armentrout, A. L., apparatus for separating solids from liquids, (P.), B., 693.
- Armitage, G., and Gordon, John, a new quinoline derivative in the treatment of infection, A., 116.
- Armour Fertilizer Works, manufacture of a concentrated fertiliser material, (P.), B., 924.
- Armour Fertilizer Works. See also Meyers, H. H.
- Armstrong, (Miss) A. H., intensity of reflexion of X-rays from diamond, A., 4.
- Armstrong, E. F., catalytic reactions at high pressures, A., 868.
- Armstrong, H. E., origin and nature of coals and chars, A., 887.
- Armstrong, P. A. E., case-hardening of ferrous articles, (P.), B., 1033.
- Armstrong, P. A. E., De Vries, R. P., and Ludlum Steel Co., alloy of high surface stability comprising nickel, [iron], and silicon, (P.), B., 1115.
- Armstrong, W. J., and Jeffrey Manufacturing Co., pulverising machine, (P.), B., 745.
- Armstrong Cork Co., and Claxton, E., manufacture of linoleum cement and linoleum, (P.), B., 1037.
- Armstrong Cork Co., and Hartman, S. H., [linoleum] floor coverings, (P.), B., 771.
- Armstrong Cork Co., Hartman, S. H., and Humphreys, C. F., manufacture of surface coverings [inlaid linoleum], (P.), B., 1164.
- Armstrong Cork Co., and McCarthy, J. C., floor coverings [e.g., linoleum], (P.), B., 958.
- manufacture of inlaid linoleum, (P.), B., 1164.
- floor-covering materials [linoleum] and their decoration, (P.), B., 1164.
- Armstrong Cork Co., and Prentis, H. W., decoration of surface coverings [inlaid linoleum], (P.), B., 1164.
- Arnaud, F. W. F., and Flint, J. W., detection of oxalic acid, A., 1272.
- Arnaudo, F., and Soldi, A., variation in the analytical data of butter as a result of alteration and ageing, B., 1167.
- Arnd, T. [with Siemens, W., and Hoffmann, W.], nature of hydrolytic acidity in soil, B., 386.
- Arnd, T. See also Taeke, B.
- Arndt, F., [transformation of ethyl oxindonecarboxylate into a naphthalenecarboxylic ester], A., 914.
- Arndt, F., and Amende, J., preparation of diazomethane, A., 1027.
- Arndt, F., and Bekir, N., preparation of thio-acids, particularly chlorothioacetic acid, A., 1558.
- 1-thio-4-pyrone and derivatives, A., 1592.
- Arndt, F., and Kalischek, A., constitution of so-called "4-pyridones," A., 615.
- Arndt, F., and Schauder, E., determination of the configuration of 2:6-diphenylpentan-4-one, A., 612.
- Arneman, W. G., and Earl, J. C., celluloses of some Australian plants, A., 1415.
- Arneman, W. G. See also Penfold, A. R.
- Arnemann, C., gasification and carbonisation of earthy moist fuels, e.g., raw brown coal, (P.), B., 311.
- low-temperature carbonisation of granular or dusty fuels, (P.), B., 404.
- Arneson, N. See Elman, R.
- Arnold, C. E., and Electro Co., treatment of minerals containing potassium, aluminium, and iron, (P.), B., 426.
- Arnold, C. W. B., and Page, H. J., carbon and nitrogen cycles in the soil. II. Extraction of organic matter of soil with alkali, B., 875.
- Arnold, J. H., diffusion. I. Determination of diffusivities in gaseous systems, A., 1509.
- diffusion. II. Kinetic theory of diffusion in liquid systems, A., 1509.
- Arnold, R. B., Hixon, R. M., and Tobacco By-products & Chemical Corporation, manufacture of a pulp product [from tobacco waste], (P.), B., 1105.
- Arnold, R. E., clay sewer-pipe manufacture. XI. Cold-junction compensator for outdoor pyrometer installations, B., 947.
- Arnot, F. L., electron scattering in mercury vapour, A., 6.
- passage of an electron beam through a field-free enclosure, A., 1493.
- Arnot, R., manufacture of laminated [building] materials, (P.), B., 864.
- adhesive or cement, (P.), B., 919*.
- films or sheets for adhesive purposes, (P.), B., 1062.
- Arnot, E. G. F. See Smyth, H. D.
- Arnou, G. See Bauchère, A.
- Arnoux, G. See Leulier, A.
- Arntz, F. See Tammann, G.
- Arny, H. V., and Schaefer, H. H., citric acid assay of solution of magnesium citrate, U.S.P., B., 1090.
- Aronovsky, S. I., and Gortner, R. A., cooking process. I. Rôle of water in the cooking of wood, B., 552.
- cooking process. II. Cooking wood with sodium carbonate, B., 1021.
- Aronson, L., and Feldblet, A., flavouring tea, (P.), B., 740.
- Arpi, R., and Dahlquist, G. J. M., annealing of wire- or band-rings of iron or another metal by inductive heating, (P.), B., 288.
- Arreguine, V., reaction of glycine and some other acyclic amino-acids, A., 1419.
- Arrhenius, O., the phosphate question [in soils]. III. Influence of phosphoric acid on the growth of plants, B., 386.
- soil acidity, B., 576.
- soil researches on sugar plantations, B., 581.
- the phosphate question in sugar-cane culture in Java, B., 581.
- the phosphate question [in soils], B., 733.
- the chlorine question [in soils], B., 734.
- Arrivaut, G., formation of the violet copper alloy Cu₂Sb, A., 988.
- Arrowood, M. W., pulverisation of materials, (P.), B., 692.
- Arsem, W. C., and Commercial Solvents Corporation, apparatus for production of carbon monoxide [from fermenter gas], (P.), B., 636.
- production of (A) formic acid (B) formaldehyde [from carbon monoxide and water], (P.), B., 754.
- Arsem, W. C., and Industrial Technics Corporation, production of dry lavalose or carbohydrate mixtures, (P.), B., 1085.
- Arsem, W. C. See also Gen. Electric Co.
- Art, M. G., the chromomonometer, an adaptation of the Duboseq colorimeter for the determination of p_H without use of standard solutions, A., 730.
- Artemova, L. P. See Vosnessenski, S. A.
- Artifex Chemische Fabrik G.m.b.H., grinding or abrading means, (P.), B., 13.
- Artsehewager, E., structure of sugar beet in relation to sugar content and type, B., 737.
- Artz, N. E. See Gelormini, O.
- Arup, P. S., composition of Irish winter butter, B., 79.
- routine determination of salt in butter and margarine, B., 79.
- fall in Reichert-Meissl values on keeping butter samples, B., 215.
- Arventiev, B. See Gheorghiu, C. V.
- Arvidsson, G., hyperfine structure in some spectral lines from highly ionised atoms of thallium and bismuth, A., 1490.
- Arvin, J. A. See Carothers, W. H.
- Arzibischev, S., and Juschakov, V. J. U., change of resistance of nickel wire under tension with simultaneous heating, A., 1353.
- Asagoe, K., classification of the spectral lines of chlorine, bromine, and iodine, A., 264.
- Asahina, T., and Dôno, T., molecular compounds of diketo-piperazine with certain heavy metals, A., 223.
- Asahina, Y., and Asano, J., constitution of hydrangenol and phylloulcin. II., A., 472.
- constitution of hydrangenol and phylloulcin. III. Synthesis of hydrangenol, A., 1442.
- Asahina, Y., and Inubuse, M., skimmianine, A., 1454.
- Asahina, Y., Nakagome, G., and Inubuse, M., flavanone glucosides. V. Reduction of flavone and flavanone derivatives, A., 198.
- Asahina, Y., and Nakanishi, N., 2:4-dihydroxydimethoxyquinoline, A., 1445.

- Asahina, Y., Ohta, T., and Inubuse, M., alkaloid of *Skimmia repens*, Nakai, A., 1454.
- Asahina, Y., and Shinoda, H., constituents of fruits of *Sorbus commixta*, Hedlund, A., 967.
- Asai, T., occurrence and physiological significance of daphnin in *Daphne odora*, A., 784.
- Asai, Y. See Takahashi, T.
- Asakawa, K., enzymic hydrolysis of different phosphoric esters, A., 372.
- Asakura, K., and Sato, T., detoxicating hormone [yakriton] of the liver. XVIII. Prophylactic effect of yakriton against subacute phosphorus poisoning, A., 1624.
- Asano, J. See Asahina, Y.
- Asaoka, K. See Nagai, S.
- Asbeck, H. J. See Lange, N. A.
- Asch, A. J., [dental] electric furnace, (P.), B., 995.
- Ascher, E. See Ruff, O.
- Aschheim, S. See Zondek, B.
- Ash Co. (London), Ltd., pulverised-fuel furnaces, (P.), B., 489.
- handling and removing furnace residues and other solid materials, (P.), B., 689.
- apparatus for breaking and handling solid materials, (P.), B., 691.
- tanks for receiving and separating mixed solid and liquid materials, (P.), B., 889.
- handling and conveying furnace residues and other solids by water flushing, (P.), B., 933.
- Ashby, W. R., cell for measuring specific conductivity of blood-serum, A., 1607.
- Ashcroft, E. A., extraction of tin from ores or materials containing tin, (P.), B., 1159*.
- Ashcroft, E. A., and Elmore, F. E., reduction of tin and other metals from their salts and purification of molten baths of metal salts, (P.), B., 721.
- Ashcroft, E. A., and Magnesium Co., Ltd., treatment of lead-zinc sulphide ores, mattes, etc., (P.), B., 379*.
- Ashdown, A. A., rate of reaction of alcohols with *p*-nitrobenzoyl chloride in anhydrous ether, A., 301.
- Ashdown, A. A. See also Staudinger, H.
- Asher, L., and Kalbermatten, R., physiology of glands. CXXII. Iron metabolism in normal and splenectomised guinea-pigs living in low-pressure atmospheres, A., 1615.
- Asher, L., and Nowinski, W. W., physiology of glands. CXXI. Influence of "thymocrescin" on growth, A., 1615.
- Asher, L., and Riesen, W., physiology of glands. CXXIII. Exchange of electrolytes between tissues and blood under the influence of specific diuretics, A., 1615.
- Ashford, C. A., phosphorus distribution in blood and calcium and phosphorus excretion during hypervitaminosis-D, A., 964.
- Ashford, C. A. See also Holmes, E. G.
- Ashington Coal Co., Ltd., and Drummond, W. J., apparatus for pulverising coal and like substances, (P.), B., 750.
- Ashley, J. N., and Harington, C. R., acetyl derivatives of thyroxine, A., 253.
- Ashley, J. N., Perkin, W. H., jun., and Robinson, R., strychnine and brucine. IX. Preparation of some isomerides of di- and tri-nitrostrychnols, A., 625.
- Ashworth, A. A., efficiency in the distillation of light oils from crude oil, B., 849.
- Ashworth, J. R., relations of the magnetic and thermal constants of ferromagnetic substances, A., 1506.
- Ashworth, P., sizing machines for artificial silk, (P.), B., 321.
- Asiatic Petroleum Co., Ltd. See Egerton, A. C.
- Askenasy, P., and Elöd, E., treatment of vanadiferous ores, (P.), B., 721.
- Askenasy, P., and Nessler, F., production and utilisation of potassium phosphates, A., 872.
- Askenasy, P., and Rose, R., production of hydrogen peroxide from barium peroxide by means of carbonic acid, A., 555.
- production of barium oxide from barium carbonate, A., 556.
- Askew, F. A., Bourdillon, R. B., Bruce, H. M., Jenkins, R. G. C., and Webster, T. A., distillation of vitamin-D, A., 1481.
- further irradiation of radiation products of ergosterol, A., 1481.
- Askew, H. O., influence of ammonium phosphate on yield and chemical composition of meadow hay, B., 923.
- Askew, H. O. See also Wright, A. M.
- Askey, P. J., oxidation of benzaldehyde and formaldehyde in the gaseous phase, A., 547.
- thermal decomposition of hydrazine, A., 547.
- Askinasi, D. L., and Jarussov, S. S., liming as a factor in the mobilisation of phosphoric acid in podzols, B., 255, 1042.
- determination of soil acidity, B., 295.
- Asnes, B. See Chadwell, H. M.
- Asociacion de Productores de Yodo de Chile, methods of influencing the combustion of ignition compositions, explosives, etc., (P.), B., 967.
- Aspelund, H., tervalent carbon. II., A., 912.
- oxidation of dihydrotetrazines, A., 930.
- formation of ketones from diarylmethyl peroxides by the action of sulphuric acid, A., 1048.
- Assarsson, G., action of calcium hydroxide solution on aluminium, A., 1262.
- Assarsson, G., and Sundius, N., constitution of hydrated Portland cement, B., 511.
- Asselin, (Mlle.) L. See Alquier, J.
- Assenhajm, D., determination of purine bases in yeast nucleic acid, A., 642.
- Asser, rational and automatic fine-sieving of lake, oil, and protective paint colours, B., 431.
- Assmann. See Keunecke, E.
- Associated Dyers & Cleaners, Ltd., and Crick, H. J., dye jigger machines, (P.), B., 945.
- Associated Electrical Industries, Ltd., Breisky, J. V., and Draper, T., fuel-burning systems, (P.), B., 536.
- Associated Electrical Industries, Ltd., and Gross, J. E., manufacture of insulated plates of magnetic material for electrical purposes, (P.), B., 381.
- Associated Electrical Industries, Ltd., and McCulloch, L., provision of insulating coatings on aluminium or aluminium alloys, (P.), B., 427.
- Associated Electrical Industries, Ltd., and Styer, C. A., deoxidising apparatus for use with oil-immersed electrical apparatus, (P.), B., 152.
- Associated Electrical Industries, Ltd., and Zworykin, V. K., photo-electric cells, (P.), B., 775.
- Associated Electrical Industries, Ltd. See also Barnett, J., Burch, C. R., Davis, N. R., Dennes, N., Ellis, A. G., and Robinson, E. Y.
- Associated Lead Manufacturers, Ltd. See Cutler, L. W., and Waring, H.
- Associated Telephone & Telegraph Co., cathode-ray tubes, (P.), B., 1035.
- Astier, C. See Dubrisay, R.
- Aston, F. W., photometry of mass-spectra and the atomic weights of krypton, xenon, and mercury, A., 393.
- constitution of chromium, A., 1232.
- constitution of molybdenum, A., 1338.
- Aston, G. H. See Ellis, C. D.
- Aston, J. See Byers Co., A. M.
- Aston, J. G., base from 2:5-dimethylpyrazine methiodide, A., 1597.
- Aston, J. G. See also Conant, J. B.
- Astruc, A., and Mousseron, M., micro-analysis of calcium ion, A., 1011.
- Astruc, A., Mousseron, M., and Bouissou, (Mlle.) N., colorimetric determination of minute amounts of calcium, A., 443.
- Asundi, R. K., search for new bands in the near infra-red spectra of CN, N₂⁺, and BeF, A., 521.
- Ateliers J. Carpentier, devices for measuring the electrical conductivity and concentration of acid or salt solutions, (P.), B., 567.
- Ateliers Réunis, and Hippert, F., disintegrator or pulveriser and separator for solid products, (P.), B., 223.
- Aten, A. H. W., electrical properties of molecules. I. and II., A., 522, 1093.
- Aten, A. H. W., and Zieren, M., diffusion of hydrogen through an iron cathode, A., 1125.
- Atherton, F. See Brinjes & Goodwin, Ltd.
- Atkins, G. R. See Imperial Chem. Industries, Ltd.
- Atkins, W. R. G., seasonal changes in the nitrite content of sea-water, A., 448.
- seasonal variations in the phosphate and silicate content of sea-water in relation to the phytoplankton crop. V. November 1927 to April 1929, compared with earlier years from 1923, A., 886.
- some geochemical applications of measurements of hydrogen-ion concentration, A., 887.
- preservation of fishing nets by treatment with copper soaps and other substances. II., B., 366.
- Atkins, W. R. G., and Fenton, E. W., distribution of pasture plants in relation to soil acidity and other factors, B., 1124.

- Atkins, *W. R. G.*, and Poole, *H. H.*, photochemical and photoelectric measurement of submarine illumination, A., 433.
- Atkinson, *J. S.*, installation and operation of gas producers for metallurgical furnaces, B., 5.
- Atkinson, *R. d'E.*, resonance and damping in the theory of atomic nuclei, A., 1331.
- soldering tungsten, B., 867.
- Atkinson, *R. d'E.*, and Houtermans, *F. G.*, quantum mechanics of α -rays, A., 7.
- Atkinson, *R. H.*, electrolytic transfer of platinum metals using fused chloride electrolytes, A., 1134.
- Atkinson, *W. V.*, and Standard Oil Co. of California, manufacture of lubricating grease, (P.), B., 66.
- Atlantic Coast Fisheries Co., and Taylor, *Harden F.*, treating comestibles, (P.), B., 792.
- treating comestibles with smoke, (P.), B., 792.
- smoke-producing apparatus for use in smoking comestibles, (P.), B., 792.
- Atlantic Coast Fisheries Co. See also Taylor, *Harden F.*
- Atlantic Refining Co. See Chillas, *R. B., jun.*, Cooke, *M. B.*, Peterkin, *A. G., jun.*, and Stroud, *W. F., jun.*
- Atlas Ago Chemische Fabrik Akt.-Ges. See Scholz, *V.*
- Atlas Powder Co., and Carnegie, *D., jun.*, manufacture of coating compositions, (P.), B., 624.
- Atlas Powder Co. See also Shipley, *S. D.*
- Atlas-Werke Akt.-Ges., and Le Juge, *S. von*, multi-stage evaporation process, (P.), B., 87.
- Atmospheric Nitrogen Corporation. See Dely, *J. G.*
- Ato, *S.*, separation and determination of gallium. I., A., 564.
- separation and determination of gallium. II. Separation of gallium and aluminium from one another, and determination of these elements, A., 1264.
- Atsuki, *K.*, and Sobue, *H.*, structure of cellulose gels. I. Mechanism of gelation. II. Synthesis of viscose, A., 993.
- Atfield, *G. C.* See Imperial Chem. Industries, Ltd.
- Attwater, *R.*, spinning pots for artificial silk, (P.), B., 319.
- Atwood, *F. C.*, evaluation of plastic or texture paint, B., 67.
- Aubé, *P.* See Bonello, *J.*
- Aubel, *E.*, specific dynamic action of alanine, A., 1470.
- oxidation-reduction potentials of living cells and their significance, A., 1612.
- Aubel, *E.*, and Mauriac, *P.*, effect of ingestion of sodium tartrate by normal and pathological animals, A., 636.
- Aubel, *E.* See also Khovine, *Y.*
- Aubel, *E. von*. See De Haas, *W. J.*
- Aubert, and Pignot, *A.*, application of the "phenol method" to the protection of light aluminium alloys, B., 1172.
- Aubert, and Prot, method of [testing corrosion by] the *E.M.F.* of dissolution, B., 1072.
- Aubert, *H.* See Litarczek, *G.*
- Aubert, *M.*, and Duehène, *R.*, propagation of combustion in hydrocarbon mixtures, A., 1127.
- Aubert, *P. F. M.* See Aubert & Duval Frères.
- Aubert & Duval Frères, hardening iron and steel articles by nitro-genisation, (P.), B., 63.
- ferro-aluminium alloys, (P.), B., 105.
- production of articles made of steel or cast iron and resistant to attack by corroding agents, (P.), B., 952.
- Audrieth, *L. F.*, parallelism in the decomposition of ammonium, hydrazine, and hydroxylamine nitrites; hyponitrous acid as a hydroxylaminonitrous acid, A., 577.
- preparation of semicarbazide, A., 757.
- Audrieth, *L. F.*, and Browne, *A. W.* [with Mason, *C. W.*], azidocarbon disulphide. IV. Preparation and properties of the new inter-halogenoid, cyanogen azidothiocarbonate, A., 1139.
- Audrieth, *L. F.*, Johnson, *J. R.*, and Browne, *A. W.* [with Mason, *C. W.*], azidodithiocarbonic acid. V. Alkyl and acyl derivatives, A., 899.
- Audrieth, *L. F.*, and Yntema, *L. F.*, electrodeposition of metals from liquid ammonia solutions of their salts, A., 1382.
- Audrieth, *L. F.* See also Yntema, *L. F.*
- Audubert, *R.*, influence of nature of electrolyte on the inversion potential of the photovoltaic effect, A., 38.
- photolysis of water and the photovoltaic effect of gold and platinum electrodes, A., 173.
- Auer, *C.*, core and mould for cast iron, etc., (P.), B., 331.
- Auer, *L.*, manufacture of emulsions from organic isocolloids which have undergone a modifying treatment, and of new materials therefrom, (P.), B., 8.
- Auer, *L.*, gas coagulation theory and the control experiments of Schmalfuss and Werner, B., 25.
- hardening or solidification of organic isocolloids containing unsaturated high-molecular acids, (P.), B., 67.
- modifying the physical properties of (A) fatty oils, (B) organic isocolloids, containing unsaturated high-molecular acids; (C) manufacture of bases for water-fast varnishes and lacquers; (D) production of rubber substitutes; (E) modifying the physical properties of resins, (P.), B., 652.
- modifying the physical properties of organic isocolloid materials, by treatment of their emulsions, (P.), B., 652.
- manufacture of new saponaceous materials from organic isocolloids containing unsaturated high-molecular acids; vulcanisation of the products, (P.), B., 652.
- Auer, *L.*, and Strachovsky, *N.*, vulcanisation or sulphurisation of organic isocolloids, (P.), B., 652.
- Auer, *L.* See also Stamberger, *P.*
- Auerbach, *J.* See Dzewonksi, *K.*
- Auerbach, *R.*, stability of technical emulsions, B., 644.
- Auerbach, *R.*, and Steinhorst, *W.*, preparation of emulsions, (P.) B., 307.
- Auerhahn, *A.* See Stollé, *R.*
- Augentine Holding Société Anonyme. See Matti, *J.*
- Augnet, *A.* See Lefèvre, *J.*
- Auld, *S. J. M.*, spray process of slurry feed, B., 14.
- estimation of gum in petrol and its significance, B., 447.
- oil burners, (P.), B., 855.
- Ault & Wiborg Co. See Miller, *A. L.*
- Aumeras, and Tamisier, spectrophotometric study of the cupri-pyridine ion in aqueous solution, A., 1120.
- Aunis, *G.* See Muraour, *H.*
- Aurig, *M.*, apparatus for treating gases, (P.), B., 1051.
- Aurig, *M.*, and Brücklmayr, *G.*, centrifugal apparatus for treatment of gases, vapours, liquids, etc., (P.), B., 932.
- Auschkap, *J.*, absorption spectra of organic dyes, A., 1498.
- Ausin, *O.* See Sarin, *E.*
- Austerweil, *G.*, an isomeride of cineole (1:4-cineole), A., 92.
- Austin, *A. O.*, and Ohio Brass Co., coating and heat-treating [metals, e.g., iron to be galvanised or tinned], (P.), B., 617.
- Austin, *J. B.*, Raman effect in liquefied gases, A., 521.
- relation between mol. wt. and m. p. of organic compounds, A., 675.
- decomposition of hydrocarbons in the electrodeless discharge, A., 1268.
- Austin, *J. B.*, and Black, *I. A.*, omission spectrum of benzene in the region 2500—3000 Å., A., 660.
- Austin, *P. C.*, rotatory dispersion of tartaric acid and its derivatives, A., 1095.
- Austin, *R. H.*, effect of soil type and fertiliser treatment on the composition of the soya-bean plant, B., 633.
- Austin, *T. D.*, and Dewhurst, *C.*, apparatus for extracting smoke and other solid particles from air, (P.), B., 695.
- Austin, *W. C.*, relations between rotatory power and structure in the sugar group. XXVIII. Conversion of *d*- α -glucoheptose into a new ketose, *d*-glucoheptulose, A., 894.
- Autogenwerk Sirius Ges.m.b.H., preparing [explosive] gases [e.g., acetylene] by interaction of solids and liquids; production of acetylene from carbide and water, (P.), B., 937.
- Auto-Klean Strainers, Ltd., and Beldam, *W. R.*, straining or filtering apparatus, (P.), B., 971.
- Autom Spezial-Maschinen G.m.b.H. See Bumke G.m.b.H., *H. A.*
- Auwers, *K. von*, spectrochemistry of aliphatic diazo-compounds, A., 899.
- atomic refractions of nitrogen, A., 980.
- dihydropyridine derivatives and pyridones, A., 1443.
- Auwers, *K. von*, and Bergmann, *F.*, structure and spectrochemical behaviour of triphenylmethane and acetylene derivatives, A., 202.
- Auwers, *K. von*, and Cauer, *E.*, acylpyrazoles. I., A., 789.
- determination of constitution of acylated pyrazoles by physico-chemical methods, A., 927.
- 1:3:4- and 1:4:5-trimethylpyrazoles, A., 927.
- Auwers, *K. von*, and Dersch, *F.*, stereoisomeric cyclohexane derivatives, A., 596.
- Auwers, *K. von*, Ernecke, *A.*, and Wolter, *E.*, influence of substituents on the formation and capacity for rearrangement of acylated indazoles, A., 480.
- Auwers, *K. von*, and Janssen, *E.*, tenacity of alkyl groups in the benzene nucleus, A., 1574.

- Auwers, *K. von*, and Susemihl, *W.*, kotimino-enamine tautomerism, A., 897.
spectrochemistry of compounds containing nitrogen. III., A., 979.
- Auwers, *K. von*, and Wolter, *E.*, mixed acid anhydrides, A., 618.
acyl derivatives of tetrahydroindazole and of tetrahydroindazole-3-carboxylic acid, A., 927.
- Auwers, *O. von*, change in electrical conductivity in strong magnetic fields, A., 17.
variation of magnetic resistance and the Hall effect of cuprous oxide with and without exposure to light, A., 1504.
magnetic properties of permalloy: influence of internal tension, longitudinal stretching, and of [hydraulic] pressure, B., 1113.
- Auwers, *O. von*, and Kerschbaum, *H.*, unidirectional layer photocells. I., A., 1491.
- Auwers, *O. von*, and Sizoo, *G. J.*, influence of size of grain on residual magnetism of soft iron, A., 529.
- Avanessov, *D.* See Alexéev, *D.*
- Avdeev, *A. V.* See Yushkevich, *N. F.*
- Avenet. See Travers, *A.*
- Avent, *A. G.*, classification of cacao butter and its substitutes by the f.p. method, B., 955.
- Averill, *H. P.*, Roche, *J. N.*, and King, *C. G.*, synthetic glycerides. II. Refractive indices of glycerides of known constitution, A., 321.
- Aversenq, Jaloustre, and Maurin, neutralisation of the toxicity of various poisons by thorium-X, A., 1618.
- Avery, *J.*, and Hirst, *E. L.*, structure of normal monosaccharides. VI. 2:3:4-Trimethyl- δ -rhamnonolactone, A., 68.
- Avery, *O. T.*, and Dubos, *R.*, specific action of a bacterial enzyme on pneumococcus type III, A., 1622.
- Avery, *O. T.* See also Goebel, *W. E.*
- Avery, *S.*, and Hayman, *D.*, carbon, hydrogen, and nitrogen determinations using a metal tube, A., 1198.
- Avery, *S.*, and Jorgensen, *G. C.*, isomeric $\alpha\beta$ -diphenyl- δ -ketonic acids. I., A., 1433.
- Avery, Ltd., *W. & T.*, and Benton, *W. A.*, apparatus for determining the sp. gr. of solid substances or bodies, (P.), B., 4.
apparatus for determining the sp. gr. of solid or liquid substances or bodies, (P.), B., 1136.
- Awbery, *J. H.*, and Griffiths, *E.*, apparatus for determining the specific heat of a material in powder form, A., 568.
- Axenov, *V.*, effect of deprivation or absorption of water on metabolism in starvation, A., 637.
- Axente, (*Mlle.*) *E.* See Voicu, *J.*
- Axentsev, *B. N.*, development of seedlings from seeds treated with solutions of nitrates, A., 1323.
- Axtell, *F. C.*, and Axtell Research Laboratories, Inc., distillation of refined, cracked oils without avoidable decomposition or discoloration, (P.), B., 599.
- Axtell Research Laboratories, Inc. See Axtell, *F. C.*
- Axthelm, *A.*, production of acid-proof etching grounds on printing plates, (P.), B., 1158.
- Aycock, *R. V.* See Harris, *W. D.*
- Aye, *D.*, rennin-like activity of *Galium* spp., A., 112.
- Aykroyd, *W. R.*, vitamin- B_2 content of cereals and the supposed connexion between human pellagra and deficiency of this vitamin, A., 1481.
- Ayres, *A. U.*, and Sharples Specialty Co., centrifugal machine, (P.), B., 223.
- Ayres, *A. U.* See also Jones, *L. D.*, and Sharples Specialty Co.
- Ayres, *E. E., jun.*, chlorination of hydrocarbons, (P.), B., 182.
- Ayres, *E. E., jun.*, and B.A.S. Co., manufacture of glyoxal and glycollic acid, (P.), B., 940.
- Ayres, *E. E., jun.*, Clark, *L. H.*, and Sharples Specialty Co., refining of fatty oils, (P.), B., 292.
- Ayres, *G. H.*, and Sorum, *C. H.*, influence of hydrolysis temperature on some properties of colloidal ferric oxide. I. Particle size, A., 693.
- Ayyar, *C. S. R.*, germicidal efficiency of "electrolytic chlorine" and formalin on bacterial spores, A., 645.
- Ayyar, *C. V. R.*, biological oxidation of sulphur. III. Sulphuroxidising organism from activated sludge, B., 295.
soil survey of the Nalkantha district (Limdi State) and its significance, B., 679.
- Ayyar, *C. V. R.*, and Norris, *R. F.*, biological oxidation of sulphur. II. Effect on the microflora of activated sludge, B., 295.
- Ayyar, *K. V. G.* See Dutt, *N. L.*
- Ayyar, *P. N. K.*, *Stibaropus tabulatus*, Schiö (Hem., Pent.), a new pest of tobacco in S. India, B., 878.
- Azéma, *M.*, and Pied, *H.*, vanadium in the blood of the *Ascidia*, A., 361.
- Azzoni, *A.* See Venino, *C. A.*

B.

- B.A.S. Co. See Ayres, *E. E., jun.*
- Baader, *A.*, determination of the ageing tendency of insulation and turbine oils, B., 5.
- Baars, *E.*, overvoltage in the electrolytic production of hydrogen, A., 423.
- Baars, *E.*, and Kayser, *C.*, overvoltage of hydrogen, A., 1125.
- Baba, *H.* See Horiba, *S.*
- Baba, *T.*, sorption of vapour by chabazite, A., 1109.
- Babbitt, *B. J.* See Beath, *C. P.*
- Babcock, *G. S.* See Clarke, *H. T.*
- Babcock, *H. D.*, photographic study of the solar spectrum in the region λ 10,000—11,000 Å., A., 832.
- Babcock, *L. W.*, and Hercules Powder Co., explosive, (P.), B., 442.
- Babcock & Wilcox Co., fluid heaters, (P.), B., 490.
grinding mills, (P.), B., 970.
fuel burners, (P.), B., 1057.
[cooling the walls of] furnaces, (P.), B., 1098.
- Babcock & Wilcox Co. See also Smith, *H. B.*
- Babcock & Wilcox, Ltd., Weeks, *E. G.*, and Riley, *W. A.*, retorts, gas producers, and like apparatus, (P.), B., 357.
quenching coke, (P.), B., 357.
coal-distillation and coke-production plant, (P.), B., 804.
- Babel, *H. C.*, drying or treating wood and other materials, (P.), B., 285*.
- Babička, *J.* See Heyrovský, *J.*
- Babitsch, *Z. E.* See Pravditsch-Neminski, *V. V.*
- Babko, *A. K.* See Tananaev, *N. A.*
- Bablik, *H.*, bending tests of zinc coatings [galvanised iron], B., 716.
formation of zinc and alloy layers during galvanising, B., 1114.
- Bach, *A.*, and Wilensky, *B.*, thermolability of enzymes. I. Behaviour towards heat of extracts of peroxidase purified by ultrafiltration, A., 1618.
- Bach, *D.*, are the urease and asparaginase of *Aspergillus niger* endo-enzymes? A., 114.
evolution of asparaginase in cultures of *Aspergillus niger*, A., 114.
evolution of urease in cultures of *Aspergillus niger*, A., 114.
- Bach, *H.*, prevention of forming of heated liquids, (P.), B., 170.
biological purification of waste liquors from gas works, ammonia-recovery plants, tar factories, and similar industries, (P.), B., 274*.
- Bach, *H.* See also Weissberger, *A.*
- Bach, *R.*, crystal structure of iron, A., 279.
- Bachen, *A.* See Boor, *A. K.*
- Bacher, *R. F.* See Goudsmit, *S.*
- Bachmann, *L.*, solution for repairing [stopping the formation of "ladders" in] silk and artificial silk goods, (P.), B., 319.
- Bachmann, *W.*, complex compounds of fluorine [fluosilicates], (P.), B., 188.
production of pure aluminium compounds suitable for the production of aluminium, (P.), B., 712.
- Bachmann, *W. E.*, supposed existence of two stereoisomeric 9-phenyl-9-benzylfluorenes, A., 1279.
action of Mg+MgBr₂ on phenyldiphenylenemethyl; formation of magnesium phenyldiphenylenemethyl bromide, A., 1279.
- Bachmann, *W. E.* See also Gømberg, *M.*
- Bachrach, *E.*, and Pillet, (*Mme.*), micro-incineration of diatoms without carapace, A., 1057.
- Bachstetz, *M.*, constitution of orotic acid, A., 781.
- Back, *E. A.*, Cotton, *R. T.*, and Ellington, *G. W.*, ethylene oxide as a fumigant for food and other commodities, B., 965.
- Backer, *H. J.*, chloromethionic [chloromethanedisulphonic] acid, A., 1270.
chlorination of formylmethionic (formylmethanedisulphonic) acid, A., 1556.
thiolmethanetrissulphonic acid, A., 1556.
- Backer, *H. J.*, and Dam, *W. van*, α -seleninopropionic acid and its optical resolution, A., 194.
ethaneseleninic acid, A., 739.
simple seleninocarboxylic acids, A., 745.

- Backer, H. J., and Klaassens, K. H., determination of lanthanum by ignition of the oxalate, A., 1148.
bromomethanetrissulphonic acid, A., 1556.
- Backer, H. J., and Mels, W. H. van, velocity of the reaction between halogenocarboxylic acids and sulphites. I., II., and III., A., 426, 711.
- Backer, H. J., and Terpstra, P., salts of methanedisulphonic acid, A., 62.
double salts of methionine acid, A., 891.
- Backer, H. J., and Zanden, J. M. van der, sulphomaleic acid, A., 1273.
- Backlin, E., micro-determination of lipins, A., 508.
- Backlund, N. O. See Aktieb. Separator-Nobel.
- Bacon, E. K., stoichiometric relations in hydrochloric acid-gelatin systems from viscosity measurements, A., 32.
- Bacon, J. N., graphite anti-oxide paint, (P.), B., 337.
- Bacon, R. F., recovery of sulphur from roaster gases, (P.), B., 63.
recovery of sulphur from iron pyrites, (P.), B., 662.
- Baddiley, J. See Brit. Dyestuffs Corp., Ltd.
- Badenhausen, T. See Koepp & Co., R.
- Bader, G. See Hieber, W.
- Bader, W. See Brit. Celanese, Ltd.
- Badger, A. E. See Parmelee, C. W.
- Badger, R. M., absorption bands of gaseous ammonia in the visible, A., 839.
possibility of separating two forms of the ammonia molecule, A., 1343.
- Badger, R. M., and Mecke, R., atmospheric oxygen band at 7600 Å (A group), A., 388.
- Badger, R. M. See also Mecke, R.
- Badger, W. L., and Baker, E. M., fluids handling. I., B., 969.
- Badger, W. L., and McCabe, W. L., fluids handling. II. and III., B., 969.
- Badger & Sons Co., E. B., manufacture of acetic anhydride, (P.), B., 1058.
- Badger & Sons Co., E. B., and Hall, W. T., method and apparatus for distilling [hydrocarbon oil], (P.), B., 1055.
- Bado, A. A., and Trelles, R. A., iodine in water-supplies of the Argentine Republic, A., 731.
- Badoche, M. See Dufraisse, C.
- Badreau, A., action of powdered organs on pancreatic amylase, A., 1316.
- Bächle, O. See Konrad, E.
- Bäder- & Verkehrs-Akt.-Ges. See Weissstein, S.
- Baer, E. See Fischer, H. O. L.
- Bär, G. F. J. M., determination of calcium, A., 52.
- Bär, H. See Hein, F.
- Baer, J., production of a wax-like body, (P.), B., 430.
manufacture of factice, etc., (P.), B., 873.
- Bär, R., effective optical arrangement for observing the Raman effect in liquids and its application to the Raman spectrum of benzene, A., 134.
- Bärner, J. See Brehmer, W. von.
- Bärtges, G., production of bronze, (P.), B., 953.
- Bäuerlein, T. See Gossner, B.
- Bäumler, R. See Fischer, Hans.
- Bag, A., influence of air on activity of catalysts used in hydrogenating oils, B., 154.
- Baggesgaard-Rasmussen, H., and Wael, H. [with Christensen, E. V.], evaluation of ipecacuanha root and its preparations, B., 81.
- Baggesgaard-Rasmussen, H. See also Abildgaard, J.
- Bahl, D. C. See Bhatnagar, S. S.
- Bahn, A. See Abderhalden, E., and Braun, J. von.
- Balm, C. See Yajnik, N. A.
- Bahr, H., equilibrium $6\text{CO}_2 + \text{C}_6\text{H}_6 \rightleftharpoons 12\text{CO} + 3\text{H}_2$, A., 715.
reduction of carbon dioxide, A., 869.
- Bahr, H., and Zieler, H., action of chlorine on ethylene, A., 572.
preparation of glycol by hydrolysis of ethylene [di]chloride, B., 499.
- Bahr, H. See also Fischer, Franz.
- Bahr, H. A., Orsat apparatus for quick and accurate gas analysis, B., 594.
- Bahr, H. A., and Bahr, T., reaction of nickel carbide, Ni_3C , prepared at a moderate temperature, A., 309.
- Bahr, H. A., and Jessen, V., fission of carbon monoxide by cobalt, A., 1531.
- Bahr, T. See Bahr, H. A., and Fischer, F.
- Bahre, C. E., utilisation of stem fibres, (P.), B., 138.
- Bailar, J. C., jun., effect of substituents on the rearrangement of benzopinacol, A., 1438.
- Bailey, A. See Howard, S.
- Bailey, C. See Woodall-Duckham (1920), Ltd.
- Bailey, C. F., and McElvain, S. M., piperidine derivatives. VIII. Substituted piperidinooalkyl benzoates, A., 786.
piperidine derivatives. IX. Methylpiperidinooalkyl cinnamates, A., 924.
local anaesthetics derived from quinoline and isoquinoline, A., 1593.
- Bailey, C. F. See also Marvel, C. S.
- Bailey, C. H., measuring the relative plasticity of pastes and doughs, B., 927.
fermentation cabinet, B., 1086.
- Bailey, C. H., and Bayfield, E. G., water imbibition of frosted wheat, B., 683.
- Bailey, C. H. See also Ferrari, C. G., and Fifield, C. C.
- Bailey, C. R., infra-red spectrum of water vapour, A., 661.
complex formation amongst the nitrates. II. Phenol-silver nitrate-water system, A., 1120.
- Bailey, C. R., and Cassie, A. B. D., Raman displacements and the infra-red absorption bands of carbon disulphide, A., 1345.
- Bailey, C. R., Cassie, A. B. D., and Angus, W. R., the asymmetrical rotator and its infra-red spectrum, A., 661.
infra-red absorption spectrum of sulphur dioxide, A., 1090.
- Bailey, E. M., and Anderson, P. J., composition of a tobacco crop that burns poorly compared with one that burns well, B., 923.
- Bailey, F., and Jackson, F. H., apparatus for straining fluids, (P.), B., 307, 971.
- Bailey, F. E., recovery of grease or fat [from wool-scouring liquors], (P.), B., 826*.
- Bailey, H., crucible furnaces for melting metals, (P.), B., 823.
- Bailey, J. R. See Poth, E. J.
- Bailey, K. C., inhibition of chemical reactions. III. Inhibition by sulphur of the atmospheric oxidation of benzaldehyde, A., 429.
- Bailey, L. H., [bromocresol-green as] indicator for ammonia titrations, B., 11.
- Bailey, R. W., creep of steel under simple and compound stresses, B., 376.
- Bailey, V. A., capture of electrons by molecules, A., 129.
behaviour of electrons in magnetic fields, A., 657.
- Bailey, V. A., and Duncanson, W. E., behaviour of electrons amongst the molecules NH_3 , H_2O , and HCl , A., 1081.
- Baily, T. F., melting and refining furnace, (P.), B., 244.
electric furnace, (P.), B., 245.
manufacture of steel, (P.), B., 288.
- Bain, C. J. See Olsen, F.
- Bain, J. See Rule, H. G.
- Bainbridge, K. T. See Brit. Thomson-Houston Co., Ltd.
- Baines, H., argentothiosulphuric acids and their derivatives. I. Preparation of sodium salts and isolation of monoargento-monothiosulphuric acid, A., 175.
mechanism of the azide-iodine test for thiosulphate and its quantitative application, B., 710.
- Baird, D. See Fowler, E. J.
- Baird, J. C., and Prentice, J. H., changes with age of the hydrogen-ion concentration of egg white and egg yolk and of the refractive index of egg white, B., 215.
- Baird, P. K., and Doughty, R. H., effects of bleaching variables on strength of easy-bleaching spruce sulphite-pulp, B., 857.
- Baird, W. See Imperial Chem. Industries, Ltd.
- Baitschikov, A. G. See Magidson, O. Y.
- Baity, H. G., and Bell, F. M., reduction of biochemical oxygen demand of sewage by chlorination, B., 168.
- Bakelite Corporation, preparation of thermoplastic sheets, (P.), B., 111.
resinous compositions and varnishes made therefrom, (P.), B., 204, 338.
manufacture of resinous compositions, (P.), B., 204.
manufacture of resinous phenolic condensation products, (P.), B., 204.
impregnation of pervious bodies and impregnating solutions therefor, (P.), B., 337.
phenolic resins and their manufacture, (P.), B., 572.
phenolic resin moulding mixtures, (P.), B., 624.
manufacture of synthetic resins, (P.), B., 624.
moulding mixtures, (P.), B., 677, 727.

- Bakelite Corporation, moulding mixtures [comprising phenol-formaldehyde condensation products], (P.), B., 828.
[laminated] electrically insulating materials, (P.), B., 916.
manufacture of formaldehyde, (P.), B., 1103*.
manufacture of polybasic acid-polyhydric alcohol resins, (P.), B., 1164*.
- Bakelite Corporation, and Chamberlin, C. L., mouldable resin composition containing a fabric filler, (P.), B., 157.
- Bakelite Corporation. See also Miller, G. W., Redman, L. V., Schmidt, J. H., Schrimpe, C. F., Turkington, V. H., and Weith, A. J.
- Bakelite Ges.m.b.H., preparation of lacquers and lacquering, (P.), B., 469.
production of rapidly hardening, odourless, phenol-aldehyde resins and mixtures of these with fillers, (P.), B., 727.
production of shaped articles from urea or its derivatives, solid polymerised aldehydes, and fillers, (P.), B., 828.
production of shaped articles from urea or thiourea, solid polymerised formaldehyde, and fillers, (P.), B., 958.
production of shaped articles from urea or its derivatives and solid polymerised formaldehyde, (P.), B., 997.
- Bakelite Ges.m.b.H. See also Chem. Fabr. J. Wiernik & Co., A.-G.
- Bakelite, Ltd., Crump, J. W., and Lloyd, A., synthetic resin products, (P.), B., 1120.
- Baker, E. B., application of the Fermi-Thomas statistical model to the calculation of potential distribution in positive ions, A., 1335.
- Baker, E. M. See Badger, W. L., and Pinner, W. L.
- Baker, G. R., Prescott, W. E., and Baker Perkins Co., Inc., concentration and evaporation of sugar syrups, (P.), B., 260*.
- Baker, G. R. See also Guggenheim, M. M.
- Baker, J. C., and Wallace & Tiernan Products, Inc., preventing the formation of scums and films due to growth of organisms on surfaces in contact with water, (P.), B., 968.
- Baker, J. W., direction of addition of hydrogen bromide to α -methyleneglutaric acid, A., 1407.
- Baker, J. W., and Ingold, C. K., alternating effect in carbon chains. XXXII. Directive influence of ψ -basic systems in aromatic substitution; nitration of benzylidene-*m*-nitroaniline, A., 594.
- Baker, J. W., and Moffit, W. G., alternating effect in carbon chains. XXXIII. Nitration of aromatic sulphonium and selenonium salts, A., 1302.
- Baker, L. E., and Corey, R. B., effects of cathode rays on the proteins of serum, A., 175.
- Baker, L. E. See also Wyckoff, R. W. G.
- Baker, M. C., Dingman, W. A., and Parker Rust Proof Co., treatment of ferrous metal articles, (P.), B., 1076.
- Baker, R. A., and Carpenter, C. C., product for promoting plant growth, (P.), B., 785.
- Baker, S. E. See Baker & Co. (Rotherham), 1920, Ltd., J.
- Baker, T., and Stockhardt, J. S., graphical rectifying-column calculations, B., 535.
- Baker, T. T., three-colour photography, (P.), B., 121.
colour photography, (P.), B., 121, 395.
[production of prints in natural colour in] colour photography, (P.), B., 1170.
- Baker, T. T., and Colour Photographs (British and Foreign), Ltd., [tri-packs for] photography in natural colours, (P.), B., 395.
- Baker, T. T., Klein, A. B., and Colour Snapshots (1928), Ltd., [tri-pack for] colour photography, (P.), B., 1170.
- Baker, T. T. See also Spicers, Ltd.
- Baker, W., colloidal phenoxides. II. Phenanthraxanthones, A., 612.
2-arylcoumaranones, A., 924.
- Baker, W., and Eastwood, F. M., colloidal phenoxides. I. Relation between constitution and colloidal properties in benzoy-pyrones, A., 217.
- Baker, W., and New, R. G. A., supposed mandelisonitrile, A., 916.
- Baker, W. B. B., manufacture of products from sulphite waste liquors, (P.), B., 1150.
- Baker, W. B. B., and Roberts, F. G., manufacture of products from sulphite waste liquors, (P.), B., 1150.
- Baker & Co. (Rotherham), 1920, Ltd., J., and Baker, S. E., furnaces particularly adapted for heat-treatment of railway tyres and similar articles, (P.), B., 823.
- Baker Perkins Co., Inc. See Baker, G. R., and Thurm, R.
- Baker Perkins, Ltd., and Webb, R. H., troughs, etc., for kneading, mixing, etc., (P.), B., 970.
- Baker Perkins, Ltd. See also Guggenheim, M. M.
- Bakker, C. J., and De Bruin, T. L., Zeeman effect in the spark spectrum of argon (A II). II, A., 829.
- Bakowski, S. See Swientoslowski, W.
- Bakr, A. M. See McBain, J. W.
- Bakshi, J. B. See Ghosh, J. C.
- Balaban, I. E., nitration of 3-hydroxy-1:4-benzisoxazine and its 7- and 8-acetamido-derivatives, A., 96.
preparation of 4- and 6-hydroxy-3-nitrophenylarsinic acids, A., 354.
formation of 4(5)-aminoglyoxalines. I, A., 617.
3-acetamido-4-hydroxyphenylstibinic acid, A., 1196.
derivatives of 2-hydroxy-4-methyl, -4:6-, -4:7-, and -4:8-dimethylquinolines, A., 1595.
- Balabucha-Popzova, V., pectin substances of tobacco, B., 347.
- Balachowski, S., volumetric determination of barium by direct titration with potassium chromate, A., 1544.
- Balandin, A. A., peculiar luminous reaction of sulphuric acid, A., 519.
decomposition reactions in the process of catalytic hydrogenation in presence of nickel; rôle of the catalyst in heterogeneous catalysis, A., 1003.
osmium as a dehydrogenation catalyst for decahydronaphthalene, A., 1133.
heterogeneous catalysis and ultra-violet irradiation, A., 1253.
- Balandin, A. A. See also Schröder, E.
- Balarev, D., inner adsorption in crystalline salts, A., 684.
- Balarev, D., and Krastev, S., state of combination of water in ferric and aluminium hydroxide gels, A., 857.
- Balarev, D., and Lukova, N., solid-solid surface phenomena, A., 1110.
- Balaš, F., and Pejšová, Z., neutral constituents of sandarac, A., 1223.
- Balaš, F., and Šrol, L., catalytic reduction of hydroxybenzoic acids, A., 212.
- Balaš, F. See also Kondakov, I. L.
- Balaschev, L. L., use of stall manure, B., 580.
- Balasse, G., and Galet, G., iodine spectra of feeble excitation, A., 830.
- Balch, R. T., maple syrup colour standards, B., 477.
- Baldracco, F. See Ponzio, G.
- Baldracco, G., modified shaking method for analysing tannins, and the Darmstadt apparatus, B., 574*.
measurement of the colour of tanning extracts, B., 731.
- Baldwin, A. W., attempts to find new anti-malarials. III. Substituted aminoalkylaminoquinolines, A., 222.
- Baldwin, I. L. See Dittmar, H. R.
- Baldwin, J. T., the mobility-concentration intercept [of fatty and lubricating oils], B., 66.
preliminary report on the investigation of soaps [in paints], B., 67.
- Baldwin, M. E., separation and properties of two main components of potato starch, A., 1167.
- Balke, C. W., metals of the tungsten and tantalum groups, B., 148.
- Balke, C. W., and Fansteel Products Co., Inc., removal of carbon impurities from tantalum, (P.), B., 915.
- Balks, R. See Hasenbäumer, J.
- Ball, A. M., and Curtis, H. A., study of certain American coals at temperatures near their softening points, B., 354.
- Ball, A. O., measurement of the dielectric constants of organic liquids, A., 729.
- Ball, C., preparations for exterminating rats, mice, and like vermin, (P.), B., 1006.
- Ball, E. G., composition of pancreatic juice and blood-serum; influence of acid and base; influence of inorganic salts, A., 804.
- Ball, E. G. See also Johnston, C. G.
- Ball, F. L., Moulton, F., and Tools Co., Ltd., L. W., anti-friction metals and bearings thereof, (P.), B., 823.
- Ball, J. M. See Somerville, A. A.
- Ball, T. R., acidity of mono- and di-ammonium phosphates, A., 1520.
- Ball, T. R., and Agruss, M. S., effect of p_H on the precipitation of zinc ammonium phosphate, A., 420.
- Ballantine, W. B., and Gilbert, M. G., recovery of tin from scrap tin-plate and like tin-bearing materials, (P.), B., 618.
- Ballantyne, E. N., factors influencing survival of bacteria in water and in saline solutions, A., 1068.
- Ballard, A. E. See Dundon, M. L.
- Ballant, F. See Gen. Aniline Works, Inc.

- Ballay, M., [resistance to corrosion of] cast iron containing nickel and copper, B., 243.
electrolytic deposits on aluminium and its alloys, B., 287.
scientific industrial control of electrolytic deposits, especially of nickel and chromium, B., 1074.
- Ballay, M. See also Guillet, L.
- Balle, G. See I. G. Farbenind. A.-G.
- Balls, A. K. See Waldschmidt-Leitz, E.
- Bally, O. See Soc. of Chem. Ind. in Basle.
- Balsamo, P., volatile spirit from heavy oils, (P.), B., 359.
- Balthasar, K., Krause, R., Zingl, A., Derfinger, K., and Ortis, J., manufacture of cement, (P.), B., 60.
- Baltzer, C. E. See Malloch, E. S.
- Balz, G., and Balz-Erzröstung Ges.m.b.H., mechanical roasting furnace, (P.), B., 20*.
- Balz, G. See also Wilke-Dörfurt, E.
- Balz, O. See I. G. Farbenind. A.-G.
- Balz-Erzröstung Ges.m.b.H., roasting of zinc blonde, (P.), B., 287.
- Balz-Erzröstung Ges.m.b.H. See also Balz, G.
- Bamag-Meguvin Akt.-Ges., vertical retorts for the production of gases, (P.), B., 47.
production of high-grade gas resembling illuminating gas, (P.), B., 230.
valve-reversing devices for intermittent gas producers, etc., (P.), B., 894.
metal netting for use as catalyst in contact units [e.g., for ammonia oxidation], (P.), B., 1077.
- Bamag-Meguvin Akt.-Ges., and Heller, O., gas producers, (P.), B., 598.
production of water-gas or coal- and water-gas, (P.), B., 700.
utilisation of the quenching vapours periodically resulting from the quenching of glowing coke in a pressure vessel, (P.), B., 751.
- Bamag-Meguvin Akt.-Ges. See also Kniesel, R.
- Bamann, E., and Laeverenz, P., asymmetric hydrolysis of esters by enzymes. III. Influence of optically active, foreign substances on the configuration-specificity of the liver-esterase of various animals, A., 490.
- Bamann, E., and Schmeller, M., kinetics of ester hydrolysis by enzymes. II. Course of the reaction in the fission of mixtures of mandelic esters and ketocarboxylic esters by liver esterases, A., 956.
- Bamann, E. See also Willstätter, R.
- Bamberg, F., removal of iron from water by aeration, (P.), B., 266.
- Bamberger, C. See Schmidt, R. B.
- Bamberger, P., irradiated milk, B., 637.
- Bamford, F., fate of apomorphine after subcutaneous injection, A., 1316.
porphyrin test for Indian opium, B., 839.
- Bamford, I. J. See Bell, W. R. G.
- Bampfyde, J. W. See Sandberg, C. P.
- Banchetti, A. See Bovolini, E.
- Banchi, G., and Giannotti, M., volatility of boric acid. I. Volatility in aqueous solution. II. Volatility in Roscoe's acids. III. Volatility of solid boric acid in steam, A., 1361.
- Bancroft, F. E. See Burch, C. R.
- Bancroft, F. W. See Kugelmass, N.
- Bancroft, G. See Bancroft, W. D.
- Bancroft, G. J., treatment of ferrotitanium [ilmenite] ores, (P.), B., 669.
- Bancroft, W. D., and Ackerman, J. W., methyl-violet lake, A., 1247.
- Bancroft, W. D., and Bancroft, G., glycogen metabolism, A., 1614.
- Bancroft, W. D., and Barnett, C. E., phase-rule studies on the proteins. I. Determination of solid compounds with hydrogen chloride or ammonia, A., 700.
phase-rule studies on the proteins. II. Quinquevalent nitrogen in organic compounds. I. and II., A., 798, 861.
solid protein hydrochlorides, A., 939.
adsorption of ammonia by proteins, A., 939.
phase-rule studies on the proteins. IV. Quinquevalent nitrogen in organic compounds. III., A., 1604.
- Bancroft, W. D., and Belden, B. C., aniline and hydrogen sulphide, A., 1362.
- Bancroft, W. D., and Cunningham, G. E., iron oxide in borate beads, A., 309.
- Bancroft, W. D., and Davis, H. L., tautomeric form of malic acid, A., 892.
influence of substituents on indicators, A., 1142.
optical rotation of malic acid, A., 892.
- Bancroft, W. D., and George, A. B., reduction of phenol, A., 553.
- Band, W., classical quantum theory and X-ray excitation by canal rays and α -particles, A., 1341.
- Bandel, G. See Tammann, G.
- Bandow, F., extinction of calcium phosphors, with particular reference to mixed phosphors, A., 1346.
- Bandte, G. See Deuts. Petroleum A.-G.
- Bandur, A. F., and Western Electric Co., Inc., magnetic [nickel-iron alloy] material, (P.), B., 952.
- Banerjee, R. See Brahmachari, U. N.
- Banerjee, K., structure of naphthalene and anthracene, A., 528.
liquid structure and X-ray diffraction in liquids, A., 1097.
orientation of the molecules in naphthalene and anthracene crystals, A., 1097.
- Banerji, A. C., scattering of α -particles by light atoms, A., 270, 837.
some problems of nuclear physics according to wave mechanics, A., 1341.
- Banford, F. E. See Figgott & Co., Ltd., T.
- Bang, O., urobilin, A., 492.
- Banger, H., and Hühn, G., burner for regenerative furnaces, (P.), B., 232.
- Banham, F. D. See Schultz, E. W.
- Banigan, T. F. See Bassett, H. P.
- Banks, H. P. See Rippey, H. F.
- Banks, H. W., and United States Rubber Co., concentrating [rubber] latex, (P.), B., 1080.
- Bannick, E. G. See Keith, N. M.
- Banning, E. See Edelman, P. E.
- Bannister, F. A., relation between the density and refractive index of silicate glasses, with application to the determination of imitation gem-stones, B., 144.
- Bannister, L. C., and Evans, U. R., passivity of metals. V. Potential-time curves of some iron alloys, A., 999.
- Bannister, W. J., and Commercial Solvents Corporation, purification of gaseous mixtures, (P.), B., 1140.
- Banov, A. V., extinction of fluorescence in solutions of dyes, A., 133, 1235.
- Banov, A. V. See also Dumanski, A. V.
- Bansall, J. W. See Humphrey, H. A.
- Bansen, H., calorific value, heat and gas flow, the physical bases of metallurgical processes, B., 908.
- Bansen, H. See also Bulle, G.
- Banta, C. See Barrett Co. and Wendt, G. L.
- Banthien, H. See Jander, G.
- Banti, G., action of chlorotone and potassium hydroxide on aromatic primary bases, A., 466.
- Banzet, P. See Gros-Lafond, L. M. V.
- Barabashev, N., and Semejkin, B., effect of temperature on the photographic plate, B., 1047.
- Baraniecki, C. See Dziewoński, K.
- Barat, C., reactivity of conjugated systems. I. Condensation of arylidene ketones with cyanoacetamide, A., 925.
- Barat, T. P. See Sarkar, P. B.
- Barbaudy, J., oxidation-reduction potential r_H , A., 422.
- Barbaudy, J., and Lalande, A., cryostat for moderately low temperatures, A., 1266.
[physical] properties of absolute alcohol, A., 1356.
- Barbe, E., acetylenic derivatives of the terpene series; preparation of some ethynylalkylcarbinols, A., 1591.
- Barbella, N. G. See McClosky, W. T.
- Barber, F. P., mixing valves for liquids, (P.), B., 645.
- Barber, H. H., production of fat from carbohydrate and similar media by a species of *Penicillium*, A., 250.
- Barber, H. H., and Kolthoff, I. M., gravimetric determination of sodium by the uranyl zinc acetate method. II. Application in the presence of rubidium, caesium, potassium, lithium, phosphate, or arsenate, A., 52.
- Barber, H. J., aromatic arsenic compounds containing sulphur groups attached to the nucleus. I. Sulphonic acids and their derivatives, A., 1456.
- Barber, H. J., and May & Baker, Ltd., preparation of organo-metallic [arsenic and antimony] compounds, (P.), B., 1095.
- Barber, T. W., mixing gases and liquids, (P.), B., 270.
simultaneous removal and emulsification of tars from tar-yielding media, (P.), B., 406.
- Barber Asphalt Co., and Davis, A. B., [non-corrodible copper] alloys, (P.), B., 19.
- Barber Asphalt Co. See also Browne, F. A.

- Barbier, G., determination of the manurial requirement of soils, B., 580.
- Barbier, G. See also Demolon, A.
- Barbieri, G. A., compounds of hexamethylenetetramine with hydrated salts. VIII. Ferro- and ferri-cyanides, A., 752.
- reduction of silver ferri-cyanide by ferrous sulphate, A., 1149.
- Barbieri, N. A., improvement of the metabolism of plants by physiological culture without change in the soil, A., 1323.
- Barbou, P. A., and Société Barbou & Cie., treating residual liquors accruing from the treatment of cellulose materials, (P.), B., 415*.
- Barbour, A. D., enzymic hydrolysis of glycogen, A., 249.
- Bărbulescu, F. See Rădulescu, D.
- Bărbulescu, N., equation of state for a surface, A., 144.
- Bardenheuer, P., growth of cast iron considered in the light of recent research, B., 242.
- melting of steel in an acid-lined Brackelsberg furnace, B., 1112.
- Bardenheuer, P., and Zeyen, K. L., superheating of cast iron, B., 285.
- Bardet, J., and Tchakirian, A., germanic oxide and oxalic acid, A., 177.
- Bardham, J. C., mechanism of cyanoacetamide and cyanoacetic ester condensations, A., 1170.
- Bardorf, C. F., colloids [cane wax] in granulated sugar, B., 1001.
- Bargellini, G., constitution of some dibromophenetidines, A., 1426.
- enzymes as reagents, B., 117.
- Bargellini, G., and Grippa, A., 2:5-dibromophenetidine, A., 908.
- 2:5-dibromo-*p*-anisidine, A., 1282.
- Bargellini, G., and Madessani, F., 3:5- and 2:6-dibromo-*p*-anisidines, A., 1282.
- Bargellini, G., and Monti, (Miss) L., 2:6-dibromo- and 3:5-dibromo-phenetidine, A., 908.
- reaction between benzoquinone and cinnamaldehyde under the influence of light, A., 1186.
- Barger, G., and Robinson, R., attempts to find new anti-malarials, A., 224.
- Barham, H. See Taft, R.
- Baril, O. L. See Underwood, H. W., jun.
- Bario Metal Corporation. See Fink, C. G.
- Barkan, G., decomposition of blood-pigments by dilute acids, A., 1304.
- Barkas, W. W., positive and negative photophoresis of colloidal particles in aqueous solution, A., 697.
- Barker, A. H., comparative costs of fuels for domestic purposes, B., 540.
- Barker, E. See Barker, F.
- Barker, E. F., and Meyer, C. F., infra-red spectra of gases under high dispersion, A., 13.
- Barker, F., Barker, E., and Barker, P. V., bleaching of fabrics in open width, (P.), B., 901.
- Barker, G. E. See Underwood, H. W., jun.
- Barker, L. M. See Klein, L.
- Barker, M. E., mechanism of charcoal activation, B., 1010.
- Barker, M. E., and Semmes, H. H., [nickel-iron-silver] alloy, (P.), B., 1034.
- Barker, P. V. See Barker, F.
- Barker, S. G., standardisation of tests for fastness of dyed fabrics, B., 761.
- Barker, S. G., and British Research Association for Woollen & Worsted Industries, manufacture of [crimped] artificial filaments or fibres, (P.), B., 944.
- Barker, W. H., and Bennett, W., coal and other mineral sorting apparatus, (P.), B., 979.
- Barlet, F. See Rosenhauer, E.
- Barlow, H. M., apparent deviation from Ohm's law for metals at high current densities, A., 676.
- Barlow, O. W. See Stormont, M. F.
- Barmina, O. N. See Smorodincev, J. A.
- Barnard, M., and McMichael, P., quantitative analysis of monochromatic transmission, A., 1541.
- Barnebey, O. L., and American Solvent Recovery Corporation, apparatus for recovery [with adsorbent carbon] of gases and vapours, (P.), B., 270.
- Barnebey, O. L., and Cheney, M. B., manufacture of absorbent carbonaceous material, (P.), B., 851.
- Barnebey, O. L. See also Coates, C. E.
- Barnes, A. H., capture of electrons by α -particles, A., 393.
- Barnes, B. T. See Forsythe, W. E.
- Barnes, C. D., and Porter, C. W., preparation of *N*-chloroacetanilide, A., 763.
- rearrangement of *N*-chloroacetanilide, A., 1174.
- Barnes, J. W., apparatus for destructive oxidation of organic material in the determination of metals in foods, B., 393.
- Barnes, J. W., and Murray, C. W., accuracy of the Gutzeit method for the determination of minute quantities of arsenic, A., 562.
- sampling cleaned apples for determination of arsenical spray residue, B., 34.
- Barnes, R. B., infra-red absorption of some organic liquids under high resolution. I. and II., A., 1090, 1235.
- Barnes, R. S., Harris, J. E. G., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing [sulphuric leuco-ester of anthraquinone-1:2-naphthacridone], (P.), B., 9.
- dyes and dyeing; [separation of leuco-esters of vat dyes from metal and pyridine], (P.), B., 277.
- Barnes, R. S., Thomas, J., and Scottish Dyes, Ltd., production of dye derivatives [sulphuric leuco-esters] of the flavanthrone series and their use, (P.), B., 810.
- Barnes, R. S., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing [soluble esters of leuco-vat dyes], (P.), B., 605.
- Barnes, W. H., crystal structure of ice between 0° and -183°, A., 20.
- Barnes, W. H., and Maass, O., f.-p. and heat capacities of aqueous solutions of potassium chloride, A., 702.
- adiabatic calorimeter, A., 1265.
- specific heat and latent heat of fusion of ice, A., 1355.
- Barnett, C. E., melamine, A., 1193.
- Barnett, C. E. See also Bancroft, W. D.
- Barnett, C. M. See Vandegriff, J. N.
- Barnett, E. de B., and Goodway, N. F., synthesis of *meso*-alkyl and *meso*-aryl anthracene derivatives. VII., A., 1041.
- Barnett, E. de B., Goodway, N. F., and Wiltshire, J. L., *ms*-alkyl-anthracenes and "transannular tautomerism." IX., A., 465.
- anthracene derivatives. I., A., 1185.
- Barnett, E. de B., and Wiltshire, J. L., *ms*-alkylanthracenes and "transannular tautomerism." VII., VIII., and X., A., 202, 902.
- Barnett, J., and Associated Electrical Industries, Ltd., soldering fluxes [for leading-in wires of electric lamps], (P.), B., 199.
- Barnett, S. E. See Doull, A. C.
- Barnette, R. M., and Hester, J. B., effect of burning on the accumulation of organic matter in forest soils, B., 525.
- Barnette, R. M. See also Leukel, W. A.
- Barnhart, G. E. See Methorell, A.
- Barnicoat, C. R., comparative analyses of cured pork products, B., 346.
- freezing of bacon, B., 684.
- Barnitt, J. B., Derr, R. B., and Scripture, E. W., jun., alumina in a new form as laboratory desiccant, A., 1550.
- Barnitzke, J. E., flotation process for oxide ores [cassiterite], (P.), B., 953.
- Baroch, C. T., hydrometallurgy of copper at the Bagdad property, B., 718.
- Baroni, A., diphenyl polysulphides, thiodiselenides, and seleno-disulphides, A., 938.
- action of magnesium ethyl bromide and of oxidising agents on diethyl polysulphides, A., 1555.
- Barosso, L., accumulator, (P.), B., 153.
- Barr, C. D., and American Cast Iron Pipe Co., hot-blast cupola, (P.), B., 244.
- Barr, C. D., Moore, W. D., and American Cast Iron Pipe Co., hot-blast cupolas, (P.), B., 378.
- Barr, G., nomogram for reduction of gas volumes to *N.T.P.*, A., 1014.
- Barr, W. L., quinoline syntheses, A., 1046.
- Barratt, S., spectra of metal molecules, A., 4.
- application of gelatinous films to glass, etc., (P.), B., 1111.
- Barratt, S., and Bonar, A. R., band spectra of cadmium and bismuth, A., 651.
- Barratt, S. See also Bonniksen, C. W.
- Barraud, M. See Dupont, G.
- Barrelet, C. E. See Fourneau, E.
- Barrenscheen, H. K., and Dell' Acqua, G., reducing power of urine, A., 806.
- Barrenscheen, H. K., and Pany, J., rôle of phosphorus in the intermediate carbohydrate metabolism of plants. II., A., 824.
- Barrett, H. S. B., Perkin, W. H., jun., and Robinson, R., harmine and harmaline. X. Synthesis of 7- and 8-methoxyketotetrahydro- β -carboline and the constitution of acetylharmaline, A., 229.
- Barrett Co., Cole, P. J., and Banta, C., [inhibitor for use in pickling of metals, (P.), B., 1034.

- Barrett Co., and Miller, *S. P.*, distillation of tar and recovery of products therefrom, (P.), B., 7.
 manufacture of pitch composition, (P.), B., 7.
 operation of retort [coal]-gas plants, and particularly the stand-pipes therefor, (P.), B., 545.
 distillation of tar, (P.), B., 546, 937.
 production of (A) high-, (B) low-carbon pitches and pitch compositions, (C) production of high- and low-carbon pitches, (P.), B., 546.
 distillation of tar at a gas-retort plant, (P.), B., 752.
 recovery of tar and other by-products from coal-distillation gases, (P.), B., 853.
- Barrett Co. See also Chillas, *R. B., jun.*, Cowdery, *A. B.*, Fenhagen, *F. D.*, McCloskey, *G. E.*, Miller, *S. P.*, and Moses, *F. G.*
 Barritt, *J.*, King, *A. T.*, and Pickard, *J. N.*, effects of cystine diet on keratin composition in rabbit wool, A., 1313.
- Barron, *E. S. G.* and Hoffman, *Z. A.*, catalytic effect of dyes on oxygen consumption of living cells, A., 639.
- Barron, *E. S. G.* See also Flexner, *L. B.*
- Barrows, *F. I.*, and Barrows, *R. H.*, drying and pulverising of coal, (P.), B., 46.
- Barrows, *R. H.* See Barrows, *F. I.*
- Barry, *T. H.*, viscosity of lithographic varnishes and linseed oil, B., 1079.
- Barsky, *G.*, and American Cyanamid Co., manufacture of methylamine [from hydrogen cyanide], (P.), B., 602.
- Barsky, *G.*, Giles, *I. V.*, and American Cyanamid Co., production of benzoic acid, (P.), B., 8.
- Barsky, *G.*, Griffith, *P. W.*, and American Cyanamid Co., production of cyanamide, (P.), B., 315.
- Barsky, *G.* See also Buchanan, *G. H.*
- Bartel Ges.m.b.H., *W.*, filtering apparatus for air and other gases, (P.), B., 492.
- Bartell, *F. E.*, and Fu, *Y.*, heat of wetting of carbon by binary liquid mixtures, A., 30.
 specific surface area of activated carbon and silica, A., 1246.
- Bartell, *F. E.*, and Greager, *O. H.*, relation of adhesion tension to "liquid absorption," B., 124.
- Bartell, *F. E.*, and Smith, *C. N.*, adhesion tension values of different types of carbon black against water and against benzene, B., 43.
- Bartell, *F. E.* See also Osterhof, *H. J.*
- Bartels, *E. E.*, and Standard Oil Co., conversion of hydrocarbon oils, (P.), B., 273.
- Bartels, *H.*, discharge of hydrogen canal rays by passage through gases and solids, A., 1493.
 influence of cultural conditions on the purity of juice and content of objectionable nitrogen in the sugar beet, B., 210.
- Bartels, *H.*, and Noack, *H.*, scattering of low-velocity electrons by gases, and its bearing on experimental methods, A., 1336.
- Bartelson, *T. L.* See Stillman, *J. W.*
- Bartelstone, *L.*, cellulose method of laminating glass, (P.), B., 510.
 making compound transparent sheets [laminated glass], (P.), B., 820.
 weatherproof laminated glass, (P.), B., 820.
- Barth, *A.*, electrolytic deposition of silver without external current, (P.), B., 200.
 absorption of gases and impurities in air under pressure, B., 305.
- Barth, *K.* See Berl, *E.*
- Barth, *T.*, symmetry of potash feldspars, A., 140.
- Barth, *T.*, and Berman, *H.*, optical data for some rare minerals, A., 733.
- Barth, *T. F. W.*, optical properties of mixed crystals, A., 276.
 pacifite, A., 448.
 sagvandites and their formation by the syntaxis of dolomite rocks, A., 448.
- Barthel, *C.*, nitrification of farmyard manure in soil, B., 73.
 biochemistry of cheese ripening, B., 437.
- Barthelemy, *H. L.* See Ruth-Aldo Co., Inc.
- Barthelmess, *E.*, separating arrangement for pneumatic centrifugal dryers, (P.), B., 969.
- Barthmeyer, *H.* See Schmalfuss, *H.*
- Bartholomew, *R. P.* See Janssen, *G.*
- Bartlett, *E. P.*, Hetherington, *H. C.*, Kvalnes, *H. M.*, and Tre-mearne, *T. H.*, compressibility isotherms of hydrogen, nitrogen, and a 3:1 mixture of these gases at -70° , -50° , -25° , and 20° , and at pressures to 1000 atm., A., 678.
 compressibility isotherms of carbon monoxide at temperatures from -70° to 200° and at pressures to 1000 atm., A., 679.
- Bartlett, *J. H., jun.*, relative intensities of nebular lines, A., 5.
 relative intensities of super-multiplet lines, A., 390.
 electron affinities of the elements, A., 517.
- Bartlett Hayward Co., [countercurrent] gas washers, (P.), B., 445.
- Bartlett Hayward Co., and Wagner, *F. H.*, liquid and gas contact apparatus, (P.), B., 41, 224.
- Bartlett Hayward Co. See also Kuehn, *P. M.*, and Wagner, *F. H.*
- Bartling, *F.*, electrical purification of gases, (P.), B., 869.
 rotary-hearth oven, (P.), B., 1134.
- Barton, *A. W.*, autolysis in seeds. I., A., 1072.
- Barton, *H. A.*, new regularity in the list of existing nuclei, A., 518.
 comparison of protons and electrons in the excitation of X-radiation by impact, A., 834.
- Barton, *P. D.*, and United Oil Co., absorption process [for natural gas], (P.), B., 1013.
- Barton, *T. H.*, chemical fire extinguishers, (P.), B., 308.
- Barton-Wright, *E. C.*, and Pratt, *M. C.*, photosynthesis. I. The formaldehyde hypothesis. II. First sugar of carbon assimilation and nature of the carbohydrates in the narcissus leaf, A., 1322.
- Bartow, *E.*, electro-osmose treatment of boiler waters, B., 968.
- Bartow, *E.*, and Jebens, *R. H.*, purification of water by electro-osmosis, B., 1048.
- Bartow, *E.* See also Denman, *W. L.*
- Bartram, *T. W.* See Hand, *C. N.*
- Bary, *P.*, pectographic examination of solutions of dyes, A., 418.
 vapour tension of jellies, A., 858.
 structure of rubber; swelling experiments in various liquids, B., 727.
- Bary, *P.*, and Rubio, *J. V.*, constitution of colloidal solutions by pectography, A., 290.
- Barysheva, *A.* See Stadnikov, *G. L.*
- Basch, *D.* See Gen. Electric Co.
- Bashenova-Koslovskaja, *L. J.* See Krestinski, *V. N.*
- Basherov, *S.* See Steenbock, *H.*
- Basinski, *A.* See Békier, *E.*
- Bass, *J.* See Kotelnikov, *N.*
- Bass, *S. L.*, and Johnson, *T. B.*, chemical changes accompanying the growth of timothy bacilli on Long's synthetic medium, A., 377.
 synthesis of some iodinated hydroxydiphenyl sulphides, A., 769.
- Bass, *S. L.* See also Renfrew, *A. G.*
- Basset, *H.*, and Szidon, *V.*, preparation of emulsions [of tar, etc.], (P.), B., 178.
- Bassett, *H.*, and Croucher, *H. H.*, phase-rule study of the cobalt chloride colour change, A., 1251.
- Bassett, *H. L.*, reactivity of aromatic hydroxyl groups. I., A., 1033.
- Bassett, *H. N.*, protective coatings for iron and steel. I. Metallic coatings, B., 771.
- Bassett, *H. P.*, removal of caustic soda-soluble substances from materials containing cellulose, (P.), B., 54.
 recovery of volatile plasticisers from celluloid, etc., (P.), B., 1105.
- Bassett, *H. P.*, and Banigan, *T. F.*, manufacture of artificial silk, etc., (P.), B., 98.
- Bassett, *H. P.*, Banigan, *T. F.*, and Meigs, Bassett, & Slaughter, Inc., mercerisation [of materials containing artificial silks], (P.), B., 1107.
- Bassett, *W. H.*, and American Brass Co., [copper] alloy wire, (P.), B., 953.
- Bassler, *E. M.*, air- and gas-washing apparatus, (P.), B., 747*.
- Basterfield, *S.*, and Powell, *E. C.*, isocarbamides and isoureides. I. New isocarbamides; salts and acyl derivatives, A., 200.
 isocarbamides and isoureides. II. Condensation of isocarbamides with diketones and ketonic esters, A., 329.
- Basterfield, *S.* See also Riddell, *W.*
- Basu, *J. K.* See Crowther, *E. M.*
- Basu, *K.*, relativistic mechanics in the Fermi-Dirac statistics and the magnetic susceptibility of gases at high temperatures, A., 847.
 characteristic values of an electronic dipole in the atomic field, A., 1340.
 application of the method of infinite determinants to calculation of "eigen"-values for the Stark effect, A., 1341.
- Basu, *K. P.*, photochemical reaction between cyclohexane and chlorine in carbon tetrachloride solutions, A., 174.
- Basu, *K. P.*, and Roy, *N. C.*, photochemical reactions between fatty acids and chlorine in carbon tetrachloride solutions, A., 871.

- Basu, U., β -diketones in ring formation. I., A., 1443.
- Basu, U. See also Sen, H. K.
- Bataafsche Petroleum Maatschappij, manufacture of lighter-coloured products from earth-oil residues, asphalt, and similar substances, (P.), B., 93.
- preparation of aqueous dispersions of petroleum products, (P.), B., 312.
- absorption of ethylene or its homologues by means of sulphuric acid, (P.), B., 359.
- purification of sulphonic acids, naphthenic acids, etc., (P.), B., 362.
- splitting of hydrocarbons, (P.), B., 406.
- preparation of stabilised dispersions, (P.), B., 408, 546.
- manufacture of dispersing, emulsifying, and stabilising agents, and of dispersions and emulsions, (P.), B., 705.
- manufacture of products from ethylene and its homologues, (P.), B., 805.
- destructive hydrogenation of carbonaceous materials, (P.), B., 853.
- preparation of liquid products from coal or coal-containing materials and liquefaction of such materials, (P.), B., 892, 977.
- manufacture of nickel in a finely-divided state in particular for the catalytic manufacture of hydrogen from a mixture of methane and water vapour, (P.), B., 915.
- conversion of oxygen-containing organic substances, such as phenols, into substances free from oxygen, (P.), B., 940.
- preparation of dispersions, (P.), B., 971.
- converting high-boiling hydrocarbons into low-boiling hydrocarbons, (P.), B., 979.
- manufacture of ethers, (P.), B., 981.
- manufacture of liquid products from coal or carbonaceous materials by heating under pressure in the presence of hydrogen, or gases or vapours containing hydrogen, (P.), B., 1012.
- treatment of hydrocarbons, (P.), B., 1012.
- cracking of hydrocarbons, (P.), B., 1050.
- refining of mineral oils and like carbonaceous materials, (P.), B., 1057.
- manufacture of urea, (P.), B., 1142.
- Bataafsche Petroleum Maatschappij, and Kirschbaum, L., bituminous emulsions, (P.), B., 1140.
- Bataafsche Petroleum Maatschappij, and Levin, H. L., [mechanism for] manufacture of waterproof fibrous products, (P.), B., 1147.
- Bataille, E., autonomous apparatus for neutralising and bleaching heated oleaginous liquids under vacuum, B., 382*.
- Batchelder, H. R. See Davis, T. L.
- Bates, J. R., quenching of mercury resonance radiation. I. Saturated hydrocarbons, A., 1489.
- Bates, J. R. See also Lavin, G. I., Taylor, Hugh S., and Urey, H. C.
- Bates, L. F., magnetic properties of some compounds of manganese, A., 22.
- Bates, O. K., comparison of fused silica, gold, and platinum linings for calorimeter bombs, B., 648.
- Bates, R. W. See Gerlough, T. D.
- Bath, W. H., and Sharples Specialty Co., centrifugal machine, (P.), B., 746.
- Bath, W. H. See also Sharples Specialty Co.
- Batham, H. N., and Nigam, L. S., periodicity of the nitrate content of soils, B., 576.
- Battegay, M., and Denivelle, L., sulphuryl chloride and nitrogen peroxide; nitrobenzenes and sulphuryl chloride, A., 1140.
- Battersby, J. W., apparatus for aerating and blending liquids, (P.), B., 223.
- production of cellular solid bodies, (P.), B., 908.
- Batley, W. A., Jamison, C. A., and Pennsylvania Crusher Co., crusher, (P.), B., 490.
- Battig, R., generation of hydrogen, (P.), B., 311.
- Batuecas, T., and Morales, E., physico-chemical analysis of an essential oil from *Eucalyptus globulus*, B., 1130.
- Batuecas, T., Schlatter, C., and Maverick, G., compressibilities of gases at 0° and below 1 atm., and their divergence from Avogadro's law. IV. Carbon monoxide and nitrogen, A., 283.
- Batuecas, T. See also Moles, E.
- Bauchère, A., and Arnou, G., manufacture of [fused] cements, (P.), B., 104*.
- kiln for manufacture of fused cement, (P.), B., 614*.
- Bauder, E., and Geigy Société Anonyme, J. R., manufacture of stable, dry, easily soluble leuco-preparations of vat dyes, (P.), B., 898*.
- Baudisch, O., significance of exchange or displacement reactions in catalytic processes, A., 41.
- action of light on potassium ferrocyanide solution. II., A., 75.
- Bauer, A., madder as a chemical and biochemical reagent, A., 1224.
- Bauer, E., thermoelastic properties of ferromagnetic metals and the molecular field, A., 22.
- Bauer, F., voltage effect for solutions of electrolytes in acetone, A., 1254.
- Bauer, F. See also Kremann, R.
- Bauer, F. C. See Smith, R. S.
- Bauer, G. See Kemmer, H.
- Bauer, J., chromium[plating] bath for the production of white, soft, and easily polishable chromium deposits, (P.), B., 721.
- electroplating metals with chromium, (P.), B., 618.
- Bauer, K. H., and Eberle, A., behaviour of polyhydroxy-aliphatic acids on heating, A., 1558.
- Bauer, K. H., and Ermann, F., partial hydrogenation of linolenic acid, A., 1271.
- Bauer, K. H., and Heber, K., *Infusum radices ipecacuanhæ*, B., 965.
- Bauer, K. H., and Panagoulas, P., action of zinc chloride on oleic acid, A., 1162.
- Bauer, K. H., and Piners, W., fatty acids from the oil of *Lycopodium clavatum*, B., 247.
- Bauer, K. H., and Poethke, W., hydrolysis of sulphuric acid esters, A., 1019.
- Bauer, L., oxygen consumption of the heart in varying, approximately isotonic, work, A., 494.
- Bauer, L. D., relation of the amount and nature of exchangeable cations to the structure of a colloidal clay, B., 523.
- Bauer, L. H. See Palache, C.
- Bauer, O., and Deiss, E., sampling and analysis of bronzes and other alloys which tend to segregate, B., 62.
- Bauer, O., and Hansen, M., influence of a third metal on the constitution of brasses. II. Nickel, B., 62.
- Bauer, O., and Sieglerschmidt, H., effect of small additions of copper or nickel on the thermal expansion and growth of cast iron, B., 950.
- Bauer, O., Vogel, O., and Holthaus, C., effect of small quantities of copper on the resistance to corrosion of structural steel, B., 1155.
- Bauer, O., and Vollenbruck, O., attack of insects on metals, B., 1071.
- Bauer, P. See Neber, P. W.
- Bauer, W., and Marble, A., mode of action of irradiated ergosterol, A., 647.
- Bauer Bros. Co., production of pulp [from wood or other fibrous material], (P.), B., 814.
- Bauer Bros. Co. See also Brennan, E. M., Hussey, E. H., and Markley, J.
- Bauermeister, H., experience with aluminium alloys in sea-water, B., 563.
- Bauerschäfer, W. See Marcusson, J.
- Baughman, W. F., and Jamieson, G. S., [separation and determination of] solid fatty acids, B., 1036.
- Baughman, W. F. See also Jamieson, G. S.
- Baum, E. See Herrmann, W. O.
- Baum, G. See Deuts. Gold- & Silber-Seheidanstalt vorm. Roessler.
- Baum, K., heat economy of coke ovens, B., 355, 541.
- Baumann, H. See Lindemann, H.
- Baumann, H. N., jun., cone-fusion [electric] muffle furnace for high-temperature work, B., 151.
- electric spalling furnace, B., 465.
- Baumann, K., and Kuhlmann, J., testing of "nicotine-free" "de-nicotinised," and "harmless" commercial tobacco products, B., 485.
- Baumeler, C. See Dhéré, C.
- Baumgärtel, T., and Bihler, C., microbiological analysis of soils; influence of continuous unbalanced manuring on the growth and development of *Azotobacter chroococcum*, B., 960.
- Baumgärtel, T., and Butenschön, H., microbiological analysis of soils, B., 1082.
- Baumgärtel, F., and Simon, K., microbiological analysis of soils, B., 341.
- Baumgarten, P., phenylthiosulphuric acid, A., 1029.
- Baumgarten, P., and Marggraff, I., reaction of nitrites with aminosulphonic acid and an identification and detection of nitrous acid in presence of nitric acid, A., 880.

- Baumgartner, E., manufacture of chromic compounds [containing hydrated chromic oxide], (P.), B., 58.
- Baumgartner, L. See King, E.
- Baumgartner, W. See Rudolfs, W.
- Baur, E., electrode potential of hopcalite, A., 998.
- Baur, W., coating metal bodies [e.g., iron] with metal [e.g., aluminium], (P.), B., 913.
- Bausch, H. See Berl, E., and Brand, K.
- Bausch, W. C., vehicle for acetylsalicylic acid tablets, (P.), B., 686.
- Bausch & Lomb Optical Co. See Scott, M. R.
- Baver, L. D., and Rehling, C. J., use of barium sulphate for clarifying soil suspensions, with particular reference to colorimetric p_{H} determinations, B., 921.
- Baxter, G. P., recommended specifications for analytical reagent chemicals, A., 1154.
- Baxter, J., and Fletcher, H. P., production of oxychloride cements, (P.), B., 60.
- Baxter, R. A., refining of shale gasoline. I. Relation of oxidation to colours and gums produced in gasoline from Colorado oil shales, B., 45.
- Baxter, W. P., heat of dissociation of oxygen [and photo-decomposition of nitrogen peroxide], A., 1384.
- quenching of the fluorescence of nitrogen dioxide, A., 1500.
- Bay, Z., and Steiner, W., composition of active nitrogen; identification of its constituents and determination of the conditions under which it is formed, A., 1087.
- Bayer, E. C., production of [heat- and sound-insulating] organic material, (P.), B., 1067*.
- Bayer, O. See Gen. Aniline Works, Inc.
- Bayer Gebrüder, lubricating agent for the compressors of refrigerators, (P.), B., 169.
- Bayerische Stickstoff-Werke Akt.-Ges., method of pickling seed, (P.), B., 298.
- production of phosphoric acid and hydrogen, (P.), B., 660, 816.
- production of phosphates and hydrogen, (P.), B., 1029.
- Bayerl, A. See I. G. Farbenind. A.-G.
- Bayfield, E. G. See Bailey, C. H.
- Baylis, W. S., and Filtrol Co. of California, apparatus for salvaging used cleaners' gasoline, (P.), B., 703.
- Bayliss, L. E., and Walker, A. M., electrical conductivity of glomerular urine from the frog and from *Necturus*, A., 1205.
- Bayliss, N. S. See Sidgwick, N. V.
- Baymakov, U. V. See Kistiakovski, V. A.
- Bayne, B. R., manufacture of [multi-coloured patterned glass and other transparencies or translucencies, (P.), B., 103.
- Bazilevich, A. S., separation and determination of the bitter resins of hops, B., 926.
- Bazowski, J., and Szaneer, H., detection of ketonic substances in urine, A., 304.
- Bazrina, E. N., and Tschesnokov, V. A., influence of atmospheric fertilising on plants, A., 1625.
- evacuation of assimilated material from leaves, A., 1625.
- Bazyrina, K. See Tschesnokov, V. A.
- Beach, A. See Sure, B.
- Beach, A. C. G., preparation of mirrors by sputtering metals on to glass surfaces, A., 1014.
- Beach, H. D., [lens unit for] production of photographic images, (P.), B., 1093.
- Beadle, C. R. G., and Gauld, J. A., spraying or atomising devices suitable for use as liquid fuel burners or road sprayers, (P.), B., 972.
- Beadles, J. R., Braman, W. W., and Mitchell, H. H., cystine deficiency of the proteins of peas and potatoes, A., 1470.
- relation between cystine deficiency and growth of hair, A., 1470.
- Beadles, J. R. See also Mitchell, H. H.
- Beakes, H. L., settling of pigments in house paints. II., B., 67.
- Beal, C. L., and Eastman Kodak Co., coating of aluminium electrolytically, (P.), B., 22.
- Beal, G. D., and McGregor, R. R., manufacture of felt, (P.), B., 1146.
- Beal, G. F. See Theis, E. R.
- Beale, A. H. See Byers Co., A. M.
- Beams, J. W., spectral phenomena in spark discharges, A., 266.
- Bean, H. S., compressibility of a gas and the correction for "supercompressibility," A., 848.
- Bear, G. E., pulveriser, (P.), B., 2.
- Beard, H. H. See Myers, V. C.
- Beard, R. R. See Handy, R. S.
- Bearden, J. A., independence of X-ray absorption on temperature, A., 1079.
- Bearden, J. A., double-crystal study of scattered X-rays, A., 1491.
- Beare, W. G., McVicar, G. A., and Ferguson, J. B., vapour and liquid compositions in binary systems. II. Acetone-water at 25°, A., 987.
- Beath, C. P., Babbitt, B. J., and Western Electric Co., Inc., steel alloy and its treatment, (P.), B., 952.
- Beato, J., rapid method of analysis of anti-friction metals, B., 562.
- Beato, J., and Brugger, M. de los D., preparation and properties of some complexes of cobalt with cyclic amines, which may be employed as specific reagents for polysulphides, A., 440.
- Beattie, J. A., heat capacities of real gases and mixtures of real gases, A., 295.
- thermodynamic properties of ammonia. II. Joule-Thomson effect and heat capacity at constant pressure, A., 533.
- equation of state for fluids. IV. Equation expressing the volume as an explicit function of the pressure and temperature, A., 534.
- simple equation for the Joule-Thomson effect in real gases, A., 677.
- rational basis for the thermodynamic treatment of real gases and mixtures of real gases, A., 1119.
- Beattie, J. A., and Bridgeman, O. C., new equation of state for fluids. V. Values of the constants for 14 gases in Amagat and Berlin units, A., 848.
- Beattie, J. A., and Ikehara, S., equation of state for gas mixtures. II. Methods of combination of the constants of the Beattie-Bridgeman equation of state, A., 1509.
- Beattie, J. A., and Jacobus, D. A., automatic thermoregulator, A., 883.
- Beattie, J. A., and Laurence, C. K., thermodynamic properties of ammonia. I. Compressibility of and an equation of state for gaseous ammonia; vapour pressure of liquid ammonia, A., 404.
- Beattie, J. A. See also Gillespie, L. J.
- Beaucourt, K., constituents of resins. II. Dehydrogenation of boswellic acid, A., 701.
- Beaudry, G. P., metal-vapour lamp, (P.), B., 65.
- Beaufour, H., extraction of albumino-caseins of vegetable origin, and separation of such albumino-caseins from amylaceous matter, (P.), B., 585*.
- Beauzumont, Y. See Bertrand, G.
- Beber, M., and Pinto, S. S., determination of calcium in pus, A., 1612.
- Bebin, P. See Bigourdan, P. E.
- Bécharé, E., production of a fire extinguisher, (P.), B., 169.
- Bechert, K., intensities of doublet lines according to the Dirac theory, A., 1491.
- Béchevot, A., gas producer, (P.), B., 405.
- Bechhold, H., subvisible virus and colloid research, A., 820.
- Bechhold, H., and Silbereisen, K., theory of emulsions, A., 32.
- Bechtereve, P., elasticity constants of anisotropic materials, A., 845.
- Beck, C., illumination of metallurgical specimens, A., 1395.
- Beck, C. See also I. G. Farbenind. A.-G.
- Beck, E. F. A. D., manufacture of heat-exchange apparatus, (P.), B., 352.
- Beck, G., scattering of electrons and α -particles, A., 516.
- systematisation of isotopes. III., A., 837.
- scattering of particles in strong fields, A., 975.
- theory of atomic disintegration, A., 1233.
- scattering of hard γ -radiation, A., 1496.
- Beck, H. See Beck, K.
- Beck, J., fixation of iodine in soils, B., 386.
- Beck, K., safety device for gas burners, (P.), B., 134.
- Beck, K., and Beck, H., influence of neutral salts on the colorimetric determination of creatinine by Folin's method, and the determination of the degradation products of albumin by Van Slyke's method in the presence of creatinine, B., 482.
- Beck, L. L. See Gilman, H.
- Beck, O., metabolism of the child in parenteral administration of protein. I.—III., A., 106.
- Bečka, J., magnesium as regulator of calcium metabolism, A., 1208.
- Beckel, A., determination of alcohol in brandy from the refraction and the density, B., 78.
- Becker, A., nutritive media for cultivating pathogenic bacteria and preparation of vaccines therefrom, (P.), B., 963.
- Becker, A. C., and Bertelsmann, W., washing cyanide compounds, ammonia, and sulphuretted hydrogen from gases, (P.), B., 650.
- Becker, B. C. See Muskat, I. E.

- Becker, *E.* See Freund, *M.*, and Hieber, *W.*
 Becker, *F.* See I. G. Farbenind. A.-G.
 Becker, *G.* See Roth, *W. A.*
 Becker, *H.* See Mohr, *R.*
 Becker, *Hans*, behaviour of hydrocarbons in high-tension discharge, B., 402.
 Becker, *Hans*, and Siemens & Halske Akt.-Ges., manufacture of drying varnishes, (P.), B., 520*.
 Becker, *Herbert*, direct measurement of the shape and width of infra-red spectral lines, A., 390.
 a third chlorine isotope, A., 393.
 Becker, *Herbert*. See also Bothe, *W.*
 Becker, *J.*, Ackeren, *J. van*, and Koppers Co., coking retort oven, (P.), B., 499*.
 Becker, *J.*, and Koppers Co., ammonia-recovery process [from coke-oven gas], (P.), B., 1012.
 coking retort oven, (P.), B., 1100.
 Becker, *J. A.*, oxide-coated filaments, A., 127.
 Becker, *J. E.* See McCollum, *E. V.*
 Becker, *M.* See Schneider, *Wilhelm*.
 Becker, *R.*, theory of the magnetisation curve, A., 844.
 Becker, *R.*, and Kersten, *M.*, magnetisation of nickel wire under strong tension, A., 1355.
 Becker, *W.*, and Macht, *F.*, geological and petrographical examination of the granites quarried in Silesia, A., 733.
 Becker, *Wilhelm*. See Loevenich, *J.*
 Becker, *Willy*. See I. G. Farbenind. A.-G.
 Becker, *W. T. S.*, and Colour Photographs (British & Foreign), Ltd., production of photographic images, (P.), B., 350.
 Becker, *W. W.* See Popov, *S.*
 Beckers, *M.*, equation of state of easily liquefiable hydrocarbons. III. Contraction of density bulbs on evacuation, A., 25.
 Becket, *F. M.*, and Electro Metallurgical Co., manufacture of low-carbon ferro-alloys [non-rusting iron], (P.), B., 1033.
 Beckett, *E. G.* See Loveluck, *R. J.*, Wilson, *J. S.*, and Woodcock, *W. G.*
 Beckinsale, *S.*, and Waterhouse, *H.*, lead alloy, (P.), B., 773*.
 Beckman, *A. O.*, and Dickinson, *R. G.*, quantum yield in the photochemical decomposition of azoimide, A., 305.
 Beckman, *A. O.* See also Brantley, *L. R.*
 Beckman, *J. W.*, extraction of [fatty] oils, (P.), B., 430.
 recovery of vegetable oils and fats by a bacterial process, B., 567.
 breaking [water-petroleum oil] emulsions, (P.), B., 894.
 processing cereal grains, (P.), B., 927.
 Beckmann, *H.*, manufacture of [highly porous] rubber substance, (P.), B., 294*.
 porous body [containing rubber], (P.), B., 729.
 Beckmann, *H.* See also K.D.P., Ltd.
 Bequerel, *J.*, and De Haas, *W. J.*, paramagnetic rotatory power of the crystals of xenotime at very low temperatures and the paramagnetic saturation, A., 401.
 Bequerel, *J.*, De Haas, *W. J.*, and Kramers, *H. A.*, experimental verification of the theory of the paramagnetic rotatory polarisation in the crystals of xenotime, A., 402.
 Bequerel, *J.* See also Kramers, *H. A.*
 Bedding, *W. C.*, charring of sugar in centrifuging, B., 925.
 Bedel, *C.*, compact fused silicon and the density of this element, A., 437.
 Bedeschi, *G.* See Greulich, *E.*
 Bedford, *C. S.*, mordanting and dyeing of wool, (P.), B., 54*.
 dyeing and similar machines, (P.), B., 709.
 Bedford, *L. H.* See Standard Telephones & Cables, Ltd.
 Bedford, *M. H.*, Lamb, (*Miss*) *F. R.*, and Spicer, *W. E.*, potentiometric titrations of phosphates, arsenates, and arsenites with silver nitrate, A., 442.
 Bedford Pulp & Paper Co., Inc. See Brydges, *W.*
 Bedi, *R. S.*, resistance changes in stretched nickel wires, A., 402.
 Bedi-i Schakir. See Krzywanek, *F. W.*
 Bee, *J. W.* See Woodman, *H. E.*
 Beebe, *R. A.* See Hopkins, *A. J.*
 Beek, *O.*, ionisation of inert gases by slow alkali ions, A., 1083, 1494.
 Beek, *J.*, jun. See Wallace, *E. L.*
 Beek, *P. A. A. van der*, and Jorissen, *W. P.*, manufacture of benzoylhydroperoxides [perbenzoic acid], etc., (P.), B., 808.
 Beek, *P. A. A. van der*. See also Jorissen, *W. P.*
 Beers, *H. S.*, and Turbo-Mixer Corporation, mixing, dissolving, or similar apparatus, (P.), B., 970.
 mixing and discharging apparatus, (P.), B., 1135.
 Beeson, *K. C.* See Hinman, *J. J.*, jun.
 Beetlestone, *N. C.*, osmosis and fermentation. I., B., 1127.
 Begas, *G.*, retort for the low-temperature carbonisation of coal, (P.), B., 91.
 Beghin, *P. P.* See Brit. Alizarine Co., Ltd.
 Béguin, *C.*, influence of the pulping of fresh gentian root on its content of glucides, B., 1046.
 preservation of gentian root by alcohol vapour, B., 1046.
 Behaghel, *O.*, and Rollmann, *M.*, fission of selenocynoacetic acid, A., 73.
 arylselenoglycollic acids, A., 100.
 alteration of the acidity of glycollic and thiolacetic acid derivatives by replacement of oxygen and sulphur by selenium, A., 232.
 Behnke, *P. M. F.*, Naamlooze Vennootschap Handelsmaatschappij "Cuba," and Naamlooze Vennootschap Houtind. "Picus," manufacture of a casein-glue film, (P.), B., 1166.
 Běhounek, *F.*, experiments on influencing radioactive disintegration, A., 516.
 γ -rays of potassium, A., 1233.
 Behr, *H. C.*, centrifugal dryers, (P.), B., 691.
 Behr, *L. D.*, Palmer, *J. W.*, and Clarke, *H. T.*, determination of bromides in biological material, A., 1486.
 Behre, *A.*, electrically heated water-bath for extraction apparatus, A., 1395.
 technical aids in the manufacture of foods; preservatives, B., 790.
 Behre, *A.*, Christlieb, *H.*, and Kongehl, *M.*, testing of river water by determination of the permanganate demand and the chlorine number, B., 967.
 Behren, *W. von*, and Traube, *J.*, stability of the submicron. II. Dissolution and formation of crystals, A., 285.
 Behrens, *H.*, and Maschinen- & Werkzeugfabr. Kabel Vogel & Schemmann Akt.-Ges., rotary drum machines for treating granular materials, (P.), B., 125, 799*.
 Behrens, *M.*, plasmalogen. II. Preparation of plasmal; hydrolysis of plasmalthiosemicarbazone, A., 1465.
 Behrens, *W. U.*, activity of ions in suspensions, A., 1117.
 buffering of soil silicates, B., 252.
 soil acidity, B., 999.
 Behrens, *W. U.* See also Mitscherlich, *E. A.*
 Behring, *H. von*, do bacteria contain sterols? A., 1621.
 Behring, *H. von*. See also Schönheimer, *R.*
 Behrman, *A. S.*, and General Zeolite Co., liquid treatment [with zeolites], (P.), B., 1094.
 Behrman, *A. S.*, and Permutit Co., making base-exchange materials, (P.), B., 102.
 manufacture of a base-exchange material; base-exchange substance; preparation of metallo-silicates, (P.), B., 1027.
 Beidler, *G. C.*, [washing apparatus for] photography, (P.), B., 84.
 [submerger means for development in] photography, (P.), B., 350.
 Beij, *K. H.*, corrosion of [copper] open-valley flashings, B., 374.
 Beilinson, *A.*, thermo-stabilisation of protein solutions with sucrose and with glycerol, A., 101.
 Beisenherz, *E.*, universal heater for laboratory and melting operations, A., 446.
 Beisler, *W. H.* See Williamson, *B. F.*
 Beiswenger, *G. A.*, and Child, *W. C.*, true boiling crude analysis [of petroleum crude oils], B., 890.
 Beitler, *H.* See Reichstein, *T.*
 Bejambes, *M.* See Guittonneau, *G.*
 Bek, *E. G.* See Brunnhöner, *G.*, and Thoma, *E.*
 Bek, *J. J.* See Waldschmidt-Leitz, *E.*
 Bekier, *E.*, and Basiński, *A.*, velocity of solution of metals in aqueous salt solutions. II., A., 549, 1002*.
 Bekier, *E.*, and Zablocki, *B.*, velocity of solution of metals in aqueous salt solutions. III. Velocity of solution of magnesium in ammonium chloride solution, A., 866.
 Bekir, *N.* See Arndt, *F.*
 Bekk, *J.*, and Bekk & Kaulen Chemische Fabrik G.m.b.H., etching of printing forms, (P.), B., 1077*.
 Bekk & Kaulen Chemische Fabrik G.m.b.H., and Thimann, *M.*, photochemical production of printing plates, (P.), B., 83.
 Bekk & Kaulen Chemische Fabrik G.m.b.H. See also Bekk, *J.*
 Belaiev, *A. K.* See Isgarishev, *N. A.*
 Belák, *A.*, and Alföldy, *Z. von*, electrochemical determination of cations in salt solutions, A., 52.
 Beldam, *W. R.* See Auto-Klean Strainers, Ltd.
 Belden, *B. C.* See Bancroft, *W. D.*

- Belenky, *M.*, catalytic phenomena in the decomposition of potassium chlorate, *A.*, 1003.
- Belenky, *M.*, and Juse, *W. P.*, photochemistry of silver nitrite, *A.*, 871.
- Belfit, *R. W.* See Scovill Manuf. Co.
- Beliaiev, *N.*, use of soya-bean oil in plants, *B.*, 1038.
- seeds of *Carthamus tinctorius*, *L.*, *B.*, 1119.
- phytin from refuse of mustard manufacture, *B.*, 1168.
- Beliankin, *D. S.*, chemistry of the feldspars, *A.*, 57.
- chemical and mineralogical character of stalactites from two glass works, *B.*, 1066.
- Beliankin, *D. S.*, and Besborodov, *M. A.*, action of dust from the batch on the checker brick of glass-furnace regenerators, *B.*, 663.
- Belikov. See Rozanov, *N. A.*
- Belknap, *F. L.* See Kirschbraun, *L.*
- Bell, *A. F.* See Farries, *E. H. M.*
- Bell, *C. E.*, and Scott, *L. G.*, ascertaining or comparing the density or translucency of photographic images and apparatus therefor, (*P.*), *B.*, 441.
- Bell, *E. V.*, and Bennett, *G. M.*, stereoisomerism of disulphoxides and related substances. V. Dioxides of 3:5-dimethylthiolbenzoic acid, *A.*, 340.
- Bell, *F.*, nitration of β -naphthylamine, *A.*, 204.
- interaction of nitroamines with sulphonyl chlorides, *A.*, 204.
- diphenyl series. IX. Further experiments with sulphonamides, *A.*, 904.
- migration of acyl groups in *o*-aminophenols, *A.*, 1282.
- Bell, *F. M.* See Baitz, *H. G.*
- Bell, *J.*, treatment of cedrene with mercuric acetate, *A.*, 1294.
- Bell, *J.*, and Henderson, *G. G.*, caryophyllene series. III. Clovene alcohol and α -caryophyllene alcohol, *A.*, 1294.
- Bell, *J. E.*, Isom, *E. W.*, and Sinclair Refining Co., cracking of hydrocarbon oils, (*P.*), *B.*, 1056.
- Bell, *J. E.*, and Sinclair Refining Co., (A) fractionation of vapours from pressure stills, etc.; (B) operation of pressure stills, (C, D) cracking of hydrocarbons, (*P.*), *B.*, 407.
- Bell, *R. M.*, and Fredrickson, *W. R.*, Raman effect of sulphuric acid, *A.*, 978.
- Bell, *R. P.*, solubility of water in solutions of acids in benzene, *A.*, 1363.
- Bell, *R. W.*, free water necessary to change β -anhydrous lactose into α -hydrous lactose, *B.*, 525.
- methods of preparing quickly-soluble lactose, *B.*, 635.
- Bell, *W. R. G.*, Rowlands, *C. B.*, Bamford, *I. J.*, Thomas, *W. G.*, and Jones, *W. J.*, equilibrium between acetone and salts, *A.*, 1252.
- Bell, *W. T.*, and Bennett, *J. F.*, compositions for use in marking lines in roads and tennis courts, (*P.*), *B.*, 828.
- Bell Telephone Laboratories, Inc., magnetic materials [nickel-cobalt-iron alloys], (*P.*), *B.*, 381.
- insulating materials [for under-water cables, etc.], (*P.*), *B.*, 775.
- Bell Telephone Laboratories, Inc. See also Elmen, *G. W.*, Given, *F. J.*, Harris, *J. E.*, McKeehan, *L. W.*, and White, *J. H.*
- Bell's United Asbestos Co., Ltd., Cann, *J. A.*, and Harrah, *E. R.*, production of moulded articles, (*P.*), *B.*, 511, 715.
- Belladen, *L.*, and Surra, *L.*, cathodic disintegration of alloys. I. Alloys of zinc and copper, *A.*, 172.
- Bellamy, *A. R.*, and Ruston & Hornsby, Ltd., oil-cleaning apparatus [for waste lubricating oil, etc.], (*P.*), *B.*, 547.
- Bellay, *J.*, process and oven or kiln for baking pulverulent materials such as limestone, (*P.*), *B.*, 191.
- oven or kiln for baking pulverulent materials such as limestone, cement, etc., (*P.*), *B.*, 375.
- gas and steam producer generator, (*P.*), *B.*, 892.
- Beller, *H.* See I. G. Farbenind. A.-G.
- Bellino, *F.*, derivatives of 2-phenylquinolinecarboxylic acids, *A.*, 926.
- Belloc, *G.*, Fabre, *R.*, and Simonnet, *H.*, biological activity of sterols; sterols of plankton, *A.*, 1222.
- Bellwood, *R. A.* See Downs, *C.*
- Belopolski, *M. A.* See Orlov, *N. A.*
- Belton, *F. W. J.*, naphthalene [in coal gas], *B.*, 749.
- Belton, *J. W.*, conversion of *N*-chloroacetanilide into *p*-chloroacetanilide by hydrogen and chlorine ions, *A.*, 335.
- Belval, *H.*, transformation of carbohydrates in the banana, *A.*, 824.
- Belyakova, *L. P.*, composition of soil suspensions of various degrees of dispersion in the steppe, solonetz, and podsolised types of soil, *B.*, 28.
- Belz, *W.* See Noll, *A.*
- Bém, *L.*, ash and non-fatty solids content, sp. gr., and determination of refractive index of the calcium chloride serum in individual samples of milk, *B.*, 164.
- Bemberg Akt.-Ges., *G. P.*, production of artificial silk by the cuprammonium stretch-spinning process, (*P.*), *B.*, 138.
- treatment [washing, bleaching, etc.] of skeins of artificial silk, (*P.*), *B.*, 505.
- Bénaget, *P.* See Michel, *A.*
- Benaglia, *P.* See Manetti, *G.*
- Benary, *E.*, action of ammonia and amines on aliphatic and aromatic hydroxymethylene ketones, *A.*, 1026.
- action of guanidine and carbamide on hydroxymethylene ketones, *A.*, 1597.
- Bénazet, *P.* See Michel, *A.*
- Benckiser, (*Fr.*) *A.* See Curtius, *T.*
- Benckiser Chemische Fabrik, *J. A.* See Draisbach, *F.*
- Bencsik, *F.*, Gáspár, *A.*, Verzá, *F.*, and Zih, *A.*, influence of bilirubin on the number of red corpuscles in blood, *A.*, 1606.
- Benda, *L.*, and Winthrop Chemical Co., Inc., stable and sterilised solution of salts of *p*-dialkylaminoarylphosphinous acids, (*P.*), *B.*, 1005*.
- Benda, *L.* See also I. G. Farbenind. A.-G.
- Bender, *E.* See Kellermann, *K.*
- Bender, *W.* See Watson, *W. W.*
- Bendixen, *N.*, and Morgan, *J. D.*, emulsions of bitumens, (*P.*), *B.*, 864.
- Benedetti-Pichler, *A.*, qualitative micro-analysis of the silver group, *A.*, 1146.
- Benedetti-Pichler, *A.*, and Schneider, *F.*, gravimetric micro-analysis of beryllium silicate rocks, *A.*, 1544.
- Benedicks, *C.*, density of some iron alloys in the liquid state, *B.*, 286.
- Benedicks, *C.*, Ericsson, *N.*, and Ericsson, *G.*, determination of the specific volume of molten iron, nickel, and iron alloys, *B.*, 421.
- Benedict, *F. G.*, and Farr, *A. G.*, energy and protein content of foods, *B.*, 263.
- Benedict, *H. C.*, polarising microscope in organic chemistry, *A.*, 568.
- Benedict, *W. S.* See Briggs, *T. R.*
- Benediktov, *A.* See Razubaiev, *G.*
- Benetato, *G.* See Nitzescu, *I. I.*
- Benford, *F.* See Reynolds, *N. B.*
- Benge, *F. H.*, Titus, *R. R.*, and Continental-Diamond Fibre Co., moulding of synthetic resins, (*P.*), *B.*, 69.
- Bengough, *G. D.*, and Stuart, *J. M.*, protecting surfaces of aluminium or aluminium alloys, (*P.*), *B.*, 916*.
- Bengough, *G. D.*, Stuart, *J. M.*, and Lee, *A. R.*, theory of metallic corrosion in the light of quantitative measurements. III., *A.*, 712.
- Bengtsson, *E.*, and Hulthén, *E.*, band spectra and electronic states of some metal hydrides, *A.*, 3.
- Bengtsson, *E.*, and Rydberg, *R.*, band spectra of aluminium hydride, *A.*, 264.
- Benhoff, *G. F.*, conversion of hydrocarbon oils, (*P.*), *B.*, 1055.
- Benin, *G. S.*, and Krasilshchikov, *B. E.*, treatment of low-grade beet products, *B.*, 29.
- Benisehek, *A.* See I. G. Farbenind. A.-G.
- Benjamin, *V. C.*, Prutzman, *P. W.*, and Contact Filtration Co., multi-disc suction filter, (*P.*), *B.*, 1008.
- Benjamin, *V. C.* See also Prutzman, *P. W.*
- Bennati, *D.*, Gautrelet, *J.*, and Herzfeld, *E.*, adrenaline, alkali reserve, and apnoea, *A.*, 1220.
- Benndorf, *H.*, frictional motion of solid bodies in a liquid, *A.*, 992.
- Benndorf, *O.* See Zinke, *A.*
- Bennemann, *F.* See Radiologie Akt.-Ges.
- Benner, *H. P.* See Egloff, *G.*
- Benner, *R. C.*, and Prest-O-Lite Storage Battery Corporation, silicated storage-battery separator and its manufacture, (*P.*), *B.*, 516.
- Benner, *R. C.* See also Gen. Chem. Co.
- Benner, *S.*, change in dielectric constant of a very rarefied gas by means of electrons, *A.*, 135.
- Bennet-Clark, *T. A.* See Dixon, *H. A.*
- Bennett, *A. C.*, air cleaner, (*P.*), *B.*, 4.
- Bennett, *A. L.*, and Goodrich, *H. R.*, reactivity test for determining the value of barium carbonate as a scum preventive [on glazed ware], *B.*, 819.

- Bennett, A. N., and Nees, A. R., viscosity of beet-house syrups, B., 260.
- Bennett, C. W., and Noyes, W. A., attempts to resolve derivatives of fluorene; *p*-aminobenzophenonehydrazone, A., 1291.
- Bennett, C. W. See also Hurd, C. D.
- Bennett, G. M., Heathcoat, F., and Mosses, A. N., influence of the sulphur atom on the reactivity of adjacent atoms or groups. III. *o*- and *c*-Chloro-sulphides, A., 61.
- Bennett, G. M., and Mosses, A. N., influence of the sulphur atom on the reactivity of adjacent atoms or groups. IV. Direct polar effects, A., 1555.
- Bennett, G. M., Mosses, A. N., and Statham, F. S., stereoisomerism of disulphoxides and related substances. VI. Co-ordination compounds of some disulphides and diamines, A., 1423.
- Bennett, G. M., and Waddington, W. B., penthian series. II. Penthian-4-one. III. Stereoisomeric derivatives of some penthianols, A., 219.
- Bennett, G. M., and Willis, G. H., tetrabromodimethylquinoxaline, A., 1193.
- Bennett, G. M. See also Bell, E. V.
- Bennett, H. B. See Jenkins, W. J.
- Bennett, H. G., standardisation of hide powder. IV. Interpretation of the results of the relative specific surface test, B., 1165.
- Bennett, H. T. See Story, L. E. G.
- Bennett, J. T., Murray, T. E., Murray, J. B., Murray, T. E., jun., and Murray, J. F., protection of cuprous materials, (P.), B., 671.
- Bennett, J. F. See Bell, W. T.
- Bennett, J. L., and Hercules Powder Co., denitrating mixtures of nitric and sulphuric acids and concentrating nitric acid, (P.), B., 945.
- Bennett, N. See Imperial Chem. Industries, Ltd.
- Bennett, R. D., search for the source of dielectric polarisation, A., 1228.
- Bennett, W. See Barker, W. H.
- Bennett Day Importing Co., Inc., and Good, H. C., treatment of edible nuts [in the shell with dyes], (P.), B., 965.
- Bennett, Inc. See Brown, G. A.
- Bennewitz, K., and Neumann, W., impulse processes on heterogeneous catalysts and the possibility of detecting chain reactions, A., 715.
- Benni, B., citric acid content of cerebrospinal fluid, A., 1057.
- Benni, B., Scherstén, B., and Östberg, O., citric acid content of human blood-serum, A., 1201.
- Bennis, A. W., furnaces burning pulverulent fuels, (P.), B., 222.
- Benoit, C., and Helbronner, A., therapeutic photochemistry, A., 1215.
- Benoit, C. See also Derrien, E.
- Benoit, (Mlle.) E. See Fournau, E.
- Benoit, (Mlle.) G. See Fournau, E.
- Benoy, M. P., mineral content of the jujube, A., 385.
- Benoy, M. P. See also Evans, W. L.
- Benrath, A. [with Cremers, L.], polytherms of the ternary systems containing water, alkali sulphate, and a sulphate of the vitriol type. II, A., 702.
- Benrath, A. [with Pitzler, H., Ilieff, N., Ben, W., Schloemer, A., Clermont, J., and Kojitsch, S.] reciprocal salt pair $\text{MgSO}_4\text{--NaNO}_3\text{--H}_2\text{O}$, A., 36.
- Benrath, A., and Benrath, H. [with Wazelle, H.], reciprocal salt pair $\text{MgSO}_4 + 2\text{KNO}_3 \rightleftharpoons \text{Mg}(\text{NO}_3)_2 + \text{K}_2\text{SO}_4$. I. and II., A., 163, 702.
- Benrath, H. See Benrath, A.
- Bensa, F., manufacture of a green vat dye from 1:12-perylenequinone, (P.), B., 95.
- cyanides [of alkali or alkaline-earth metals] and ammonia, (P.), B., 187.
- manufacture of a vat dye [of the perylene series], (P.), B., 316.
- manufacture of perylenetetracarboxylic anhydride, (P.), B., 604.
- Bensa, F. See also Zinke, A.
- Benson, H. S., heating and cooling of liquids and automatically controlling the temperature thereof, (P.), B., 590.
- Benson, W. L. See Corson, B. B.
- Bent, H. E., laboratory shaker, A., 568.
- electron affinity of free radicals. I. Electron affinity of triphenylmethyl, A., 699.
- Bent, L. N. See Humphrey, J. W.
- Bentley, L. A., cupola furnaces, (P.), B., 1114.
- Bentley, W. H. See Riley & Sons, Ltd., J.
- Bentley & Jackson, Ltd. See Nuttall, T. D.
- Benton, A. F., and White, T. A., adsorption of hydrogen by nickel at low temperatures, A., 990.
- Benton, W. A. See Avery, Ltd., W. & T.
- Benvenuto, G. See Garino, M.
- Beran, O., and Quittner, F., variation with field strength of back *E.M.F.* and of true conductivity in ion crystals, A., 1504.
- Berbeca, K., [portable roller] mills for fine grinding [of grain], (P.), B., 165.
- Berchet, G. See Dean, P. M.
- Berdell, T. V. D. See Holz, A.
- Berenbruch, A. See I. G. Farbenind. A.-G.
- Berend, N. See Tangl, H.
- Berendes, R., Schütz, L., and Winthrop Chemical Co., Inc., betaine thiocyanate, (P.), B., 1169*.
- Berenstein, F. J., reaction between sugars and boric acid, A., 196.
- Berg, C. P., Rose, W. C., and Marvel, C. S., tryptophan and growth. II. Growth on a tryptophan-deficient diet supplemented with tryptophan derivatives. III. β -Indolylpropionio and β -indolylpyruvic acids as supplements to tryptophan-deficient diets, A., 243.
- Berg, F. R., and Schwarzacher, W., position of the violet band of oxy- and carbon monoxide-hæmoglobin, A., 1304.
- Berg, H. See Fischer, Hans.
- Berg, H. O. See Michel, G.
- Berg, L., lithium chlorate, A., 307*.
- Berg, L. M. v.d., simple preparation of ether for narcosis from commercial ether, B., 1130.
- Berg, N. See Büllmann, E.
- Berg, R., and Küstenmacher, H., applicability of chemical reactions to micro-analysis. III. Gravimetric micro-determination of copper and titanium with 5:7-dibromo-8-hydroxyquinoline, A., 1546.
- Berg, R., and Teitelbaum, M., selenious acid as a specific reagent for the determination and separation of bismuth and titanium, A., 566.
- determination and separation of titanium with 8-hydroxyquinoline, A., 1150.
- applicability of chemical reactions to micro-analysis. II. Detection and determination of small quantities of silicic and selenious acids with pyrrole, A., 1546.
- Berg, R., Wolker, W., and Skopp, E., applicability of chemical reactions to micro-analysis. I. Colorimetric micro-determination of metals with 8-hydroxyquinoline, A., 1546.
- Berg, R. See also Eichholtz, F.
- Berg, S., new apparatus for determining degrees of fineness, and some applications of this apparatus to various ceramic materials, B., 59.
- Berg, V. See Kostytschev, S.
- Berg, W., X-ray examination of crystal defects, A., 279.
- lattice distortion at slip-planes; X-ray examination of rock salt, A., 1503.
- Bergamaschi, M. See Pollacci, G.
- Bergauer, J. See Bureš, E.
- Bergdoll, R. See Stollé, R.
- Berge, K. See Krauss, F.
- Bergedorfer Eisenwerk. Akt.-Ges., centrifuges for separation of solid matter from liquids, (P.), B., 3.
- heat exchanger, (P.), B., 1096.
- Bergeim, F. H. See Du Pont de Nemours & Co., E. I.
- Bergel, F., and Wagner, R., constitution of cannabinol, the active principle of hashish. I., A., 1431.
- Bergen, W. von, effect of exposure of wool before dyeing, B., 505.
- Berger, A. J. See Cantello, R. C.
- Berger, C. E., effect of light on the electron emission from cerium dioxide, A., 268.
- Berger, E., recrystallisation of metals and dynamic aggregation in glass, A., 669.
- Berger, E. E. F. See Lefebvre, C. G. J.
- Berger, F. See Oesterr. Siemens-Schuckert-Werke., and Späth, E.
- Berger, K. See Hantzsch, A.
- Berger, O. H., and McDonald Construction Co., W. P., cold bituminous paving composition, (P.), B., 1067*.
- Berger, R. See Lange, E.
- Bergfeld, L., recovery of oxides of nitrogen, (P.), B., 325.
- Bergkamp, E. S. von, use of filter pencils, A., 1548.
- construction of electric resistance furnaces, B., 107.
- nomograms for technical gas analysis, B., 443.
- Bergkamp, E. S. von, and Hanant, L., volumetric determination of carbon in graphite, B., 593.
- Bergl, K., production of cold, (P.), B., 1137.
- Bergman, A. G., and Dombrowskaja, N. S., double decomposition in the absence of a solvent. X., A., 163.

- Bergmann, E., transanellar isomerism, A., 903.
 stereochemistry of aromatic ring systems. III., A., 1031.
 alkali organic experiments, A., 1568.
 "superfluous" isomerides. III. Condensation of fluorene with piperonal and *p*-dimethylaminobenzaldehyde, A., 1569.
- Bergmann, E., and Blum-Bergmann, O., [two isomeric *ms*-tetrahydro-9:9'-diacridyls], A., 790.
- Bergmann, E., Blum-Bergmann, O., and Christiani, A. F. von, action of lithium alkyls on acridine and other organo-alkali transformations in the acridine series, A., 1596.
- Bergmann, E., and Bondi, A., modes of reaction of phosphorus pentachloride. I., A., 1050.
- Bergmann, E., and Christiani, A. F. von, double linking. I. Action of halogens on fulvenes, A., 1569.
- Bergmann, E., and Engel, L., significance of dipole measurements in the stereochemistry of carbon compounds, A., 979.
- Bergmann, E., Engel, L., and Sándor, S., dipole moments of *o*-dihalogen derivatives of benzene, A., 1501.
- Bergmann, E., and Fujise, S., experiments with dibenzylidene-dihydroanthracene, A., 1031.
 occurrence of free disubstituted methyl radicals in chemical reactions, A., 1584.
- Bergmann, E., Magat, M., and Wagenberg, D., double linking. III. Aromatic thioketones, in particular, their reaction with diazomethane, A., 1584.
- Bergmann, E., and Wagenberg, D., action of sodium diphenylmethyl on aromatic ketones and thioketones, A., 1585.
- Bergmann, E., and Weiss, H., polymerisation. I. Two dimerides of *as*-diphenylethylene, A., 901.
 "superfluous" isomerides. I. Dehydration of $\beta\beta\gamma$ -triphenylpropyl alcohol, A., 902.
 action of lithium on the unsaturated dimeride of *as*-diphenylethylene, A., 902.
 synthesis of indene derivatives, A., 1030.
- Bergmann, E., and Wolff, H. A., "superfluous" isomerides. II. The two $\beta\beta\beta$ -triphenylpropionitriles of Fosse, A., 912.
- Bergmann, E. See also Schlenk, W.
- Bergmann, F. See Auwers, K. von.
- Bergmann, M., protein constituents and their enzymic conversions, A., 1317.
 apparatus for measuring the permeability of surfaces of membrane hide, leather, wood, etc., by liquids and gases, B., 85.
 red discoloration of salted hides and salt stains, B., 433, 960*.
 depilating hides and skins, (P.), B., 783*, 960*.
 influence of neutral salts on [raw] hide, B., 831.
- Bergmann, M., and Carter, N. M., synthesis of β -glycerides, A., 1555.
- Bergmann, M., and Dietsche, O., determination of proteolytic bating enzymes, B., 159.
- Bergmann, M., and Freudenberg, W., unsaturated reduction products of the sugars. XIII. Gentiobial and the ring structure of glucal, A., 70.
- Bergmann, M., and Grafe, K., peptide-like substances. XXXI. Synthesis of a peptide and other derivatives of α -aminoacrylic acid (dehydroalanine) from pyruvic acid. XXXII. Compounds of pyruvic acid with amino-acids. XXXIII. Peptide linking, A., 585.
- Bergmann, M., Immedörfer, E., and Loewé, H., treatment of animal and vegetable fibres, (P.), B., 54*.
- Bergmann, M., and Lissitzin, M., superfluous stereoisomerides of γ -amino- β -hydroxy- α -butyric acid, A., 459.
- Bergmann, M., and Machemer, H., intermediate products of the hydrolysis of cellulose and chemical determination of their mol. wt., A., 457.
 characterisation of technical celluloses by the iodine value, B., 1104.
- Bergmann, M., and Michalis, G., catalytic hydrogenation of *l*-cystine to *l*-cysteine, A., 754.
- Bergmann, M., and Schleich, H., specificity of peptidases, A., 1475.
- Bergmann, M., Schmitt, V., and Miekeley, A., peptide-like substances. XXX. Peptides of dehydro-amino-acids, their behaviour towards pancreatic enzymes, and their use in peptide synthesis, A., 772.
- Bergmann, M., and Stern, F., acetylation of amino-acids by keten, A., 459.
- Bergmann, M., and Weil, G., cycloacetals of benzoin and their transformation, A., 1438.
- Bergmann, (Frl.) R. See Simon, F.
- Bergmann, W. See Windaus, A.
- Bergolin-Werke van der Bergh, Komm.-Ges. auf Akt., production of priming composition [for paints and varnishes], (P.), B., 520.
- Bergquist, H. Keebler, P. T. and Elliott Co., heat exchanger, (P.), B., 2.
- Bergs, H., syntheses of lactones resembling santonin, A., 1038.
- Bergstein, M., contact rectification. I. Classification of contact rectifiers, B., 671.
- Bergstrom, F. W., and McAllister, S. H., preparation of 2-alkyl- and 2-aryl-pyridines by the Grignard reaction, A., 1191.
- Bergstrom, F. W. See also Leicester, H. M.
- Bergsvik, A., and Vitacream, Ltd., atomising nozzles more particularly for emulsifying purposes, (P.), B., 1051.
- Bergsvik, A., Vitacream, Ltd., and Hellerud, R., manufacture of artificial cream, (P.), B., 1130.
- Bergwerksverband zur Verwertung von Schutzrechten der Kohlentechnik. See Glud, W.
- Beringer, C. R., production of zinc-white pigments, (P.), B., 780.
- Berkel, C. F. M. van, burners for liquid fuel, (P.), B., 408.
- Berkeley, (Earl of), dissociation theory of solutions, A., 1371.
- Berkeley, (Earl of), and Stenhouse, E., density of the vapours in equilibrium with water, ethyl alcohol, methyl alcohol, and benzene, A., 1357.
- Berkey, D. K., thin sulphur layers, A., 1266.
- Berkhout, P. J. T. van, determination of residual nitrogen of the blood of inhabitants of the tropics, A., 1201.
- Berkner, F., and Schlimm, W., effect of harvesting in different stages of ripeness on the valuable constituents of cereals, B., 1083.
- Berkolaiko, N. See Pinkus, A.
- Berkson, J., and Hollander, F., equation for the reaction between invertase and sucrose, A., 865.
- Berl, E., treatment of bodies [active carbon] of highly porous character, (P.), B., 274*.
 manufacture of activated carbon, (P.), B., 404.
- Berl, E., and Althoff, F. W., apparatus for the fractional distillation of small quantities of a substance, A., 1154.
- Berl, E., Barth, K., and Winnaecker, K., preparation of metal sols in organic dispersion media by electrical disintegration, A., 155.
- Berl, E., and Bausch, H., combustion limits at high pressures of mixtures of air with inflammable gases. II. and III., A., 167, 299.
- Berl, E., and Burkhardt, H., preparation of active carbon, B., 593.
- Berl, E., and Hartmann, E., limits of combustion of inflammable mixtures of vapour and air at low pressures, A., 424.
- Berl, E., and Hefter, O. [with Rau, F., Djang, G. S., and Umstätter], modification of Barger's method of mol. wt. determination, A., 530.
- Berl, E., and Herbert, W., evaluation of active charcoal, B., 1052.
- Berl, E., and Jüngling, K., synthesis of the higher hydrocarbons from water-gas at atmospheric pressure, B., 650.
- Berl, E., and Löblein, F., system lime-alumina-silica, B., 713.
- Berl, E., and Ranis, L., refractive indices of some organic vapours, A., 1093.
 absorption of organic solvents by washing with liquids, B., 753.
- Berl, E., and Saenger, H. H., system N_2O_5 - HNO_3 , A., 161.
- Berl, E., and Schmidt, A., laboratory shaking machines, A., 1266.
- Berl, E., and Schmitt, B., wetting phenomena with blende and lead glance, B., 1114.
- Berl, E., and Umstätter, H., dependence of viscosity of cellulose solutions on temperature, A., 1115.
- Berl, E., and Winnaecker, K., oxidation processes in motor fuels. II. and III., A., 168, 1002.
 oxidation processes in motor fuels. IV. Autoxidation of benzaldehyde, A., 1002.
- Berlin, D. W., and Brinck, J. A., treatment of peat for production of fuel therefrom, (P.), B., 403.
 wet carbonisation, (P.), B., 891.
- Berlin, L. E. See Volkovich, S. I.
- Berlin-Karlsruher Industriewerke A.-G., spinning centrifuges for artificial silk, (P.), B., 1062.
- Berline, R. M., centrifugal machines, (P.), B., 886.
- Berliner, E., and Rüter, R., detection of hard wheat grits, B., 738.

- Berliner, R. See General Aniline Works, and Grasselli Dyestuff Corp.
- Berlinghof, K. See Geisinger, E. E.
- Berlingozzi, S., and Furia, M., chemical constitution and physiological action; behaviour of the stereoisomeric α -bromoiso-valeryl-L-asparagines, A., 111.
- Berlyn, J. A. See Martin, W. E.
- Berman, H., composition of the melilite group, A., 734.
- Berman, H. See also Barth, T.
- Berman, S. L. See Nakhmanovich, M. I.
- Bermann, L. See Faltis, F.
- Bermann, V., fluorescence of malt and beer, B., 636.
- Bermejo, A. G. See Diaz de Rada, F.
- Bermejo, L., Wicland's theory and the phenomenon of oxidation of petroleum hydrocarbons, A., 57.
- determination of total sulphur in combustible liquids, B., 976.
- Bermejo, L., and Arando, V. G., reactions of magnesium compounds with ethylene oxide. I. Reaction between trimethylene oxide and magnesium ethyl bromide, A., 318.
- Bermejo, L., and Blas, L., ketonic amines and local anaesthetics, A., 247.
- electrosynthesis of hydrocarbons. II., A., 1399.
- Bernal, J. D., universal X-ray photogoniometer. IV., A., 56.
- Bernard, A. See Griffon, H.
- Bernard, H. See Goldschmidt, S.
- Bernard, H. B., and Sinclair Oil & Gas Co., recovery of gasoline, (P.), B., 546.
- Bernard, R., and Job, P., oxidation of cobalt salts in alkaline medium, A., 309.
- Bernardi, A., compounds of manganese with nitrophenols. III., A., 597.
- new compounds of nickel with nitrophenols. II., A., 597.
- Bernardi, A., and Raycol, Ltd., method of enabling pictures or the like to be exhibited in substantially natural colours, (P.), B., 1093.
- Bernardi, A., and Schwarz, (Miss) M. A., peptone. VI., A., 628.
- Bernardini, F., and Gauthier, E. A., variations in the density of the whey with the ageing of milk, B., 1044.
- Bernardini, G. See Rossi, B.
- Bernasconi, E. See Treadwell, W. D.
- Bernauer, F., "trillings", A., 140.
- Berndorfer Metallwarenfabrik A. Krupp Akt.-Ges., internal cooling of metal vessels containing acid liquids, (P.), B., 565.
- Berndt, K., digestion of pine wood [*Pinus sylvestris*] by the sulphite process, B., 608.
- Berndt, W. See Gen. Aniline Works.
- Berner, E., supposed depolymerisation of inulin, A., 1025.
- calorimetric researches, A., 1252.
- Bernfeld, A., effect of colloids on the action of histamine, A., 1472.
- Bernfeld, A., and Schiff, E., vitamin content of breads baked with baking-powder and with yeast, A., 1481.
- Bernhard, E. See I. G. Farbenind. A.-G.
- Bernhard, R., and Traylor Engineering & Manufacturing Co., crusher, (P.), B., 691.
- Bernhardt Akt.-Ges., F. A., and Kuhnel, T., dye vats for dyeing, (P.), B., 555.
- Bernhauer, K., and Wolf, H., oxidative decomposition of sugars. VIII. Formation of lactic acid from sugars and related materials, A., 747.
- oxidative decomposition of sugars. IX. Formation of trioses from sugars under pressure, A., 1022.
- Bernhoeft, K., and Wunder, W., working of electrolytic copper, B., 331.
- Berni, A., jcsaconitine, A., 497.
- Bernier, M., Duriez, A., Duriez, F., and Schotsmans, H., treatment of distiller's wash, and other by-products and agricultural or industrial residues, (P.), B., 682.
- Bernoulli, A. L., and Sarasin, A., influence of constitution on fusion curves of binary systems of aromatic compounds, A., 1122.
- Bernoulli, A. L., Schenk, M., and Hagenbuch, W., swelling and acetylation of cellulose, A., 1168.
- Bernreuther, E. See Wohl, A.
- Bernstein, Alexander, determination of catalase; importance of erythrocyte volume in determination of blood-catalase, A., 942.
- Bernstein, Arnold. See Zellstofffabr. Waldhof.
- Bernstein, F. See Rüpe, H.
- Berresford, A. W. See Low, F. S.
- Berridge, H., colloidal nature and water content of clays, B., 820.
- Berriman, J. W., water purification [in the paper-mill], B., 796.
- Berrisford, W. H., apparatus for separating coal from dirt and similar foreign substances, (P.), B., 403, 545.
- screens employed for the screening of coal, (P.), B., 753.
- Berry, A. F., manufacture of blocks, bricks, slabs, etc., for the construction of roads, buildings, etc., (P.), B., 715.
- Berry, H., manufacture of cementitious material, (P.), B., 1030.
- Berry, J. G. See Lancaster, R.
- Berry, P. A., liquor plumbi subacetatis fortis: its preparation and assay, B., 1045.
- Berry, Wiggins & Co., Ltd., and Holmes, H. H., making of roads, pavings, foundations, etc., (P.), B., 192, 242, 771.
- Berseh, H. W. See Bruchhausen, F. von.
- Bersin, T. See Meerwein, H.
- Bert, L., synthesis of phenylpropargyl alcohol and its argy nuclear-substituted homologues, A., 1430.
- Bert, L., and Dorier, P. C., synthesis of cinnamyl alcohol and homologues, A., 1286.
- synthesis of cinnamaldehyde and its homologues, A., 1290.
- Bert, L., and Raynaud, M., synthesis of propenylbenzene, A., 1423.
- Bertelsmann, W. See Becker, A. C.
- Berthélemy, P., and De Montby, H., [aluminium] alloys, (P.), B., 289, 427*.
- Berthelot, A., natural and chemically defined media, A., 1478.
- Berthelot, A., Amoureux, G., and Petit, D., composition of peptone from ground-nut meal and its application to the culture of pathogenic bacteria, A., 1478.
- Berthmann, A. See Naoum, P., and Wöhler, L.
- Bertho, A. [with Nüssel, H.], sugars containing nitrogen. I. Azido-derivatives of dextrose, A., 747.
- Bertho, A. See also Curtius, T.
- Berthoud, A., supposed maximum in the molecular conductivity of certain electrolytes, A., 421.
- thermodynamics of catalysis, A., 549.
- photobromination of organic compounds having an ethylenic double linking, A., 713.
- Berthoud, A., Briner, E., and Schidlof, A., ebullioscopic paradox, A., 283.
- Berthoud, A., and Urech, C., photo-isomerisation of allocinnamic acid sensitised by iodine, A., 1136, 1260.
- Bertleff, V., pickling of metals, (P.), B., 566*.
- Bertram, F., levulose and dextrose in intermediary metabolism, A., 109.
- Bertram, S. H., and Meurs, W. A. van, apparatus for hot filtration of saturated solutions, A., 315.
- Bertrand, G., and Beaumont, Y., variation with age of the zinc content of animals; influence of a milk diet, A., 953, 1209.
- Bertrand, G., and Mokagnatz, M., distribution of nickel and cobalt in plants, A., 823.
- Bertrand, G., and Rosenblatt, M., content of potassium and sodium in plants found in salt lagoons or on the sea-shore, A., 823, 1326*.
- Bertrand, G., and Silberstein, L., determination of sulphur and phosphorus in plants, A., 120, 1326*.
- relative importance of sulphur and phosphorus in plant nutrition, A., 262.
- Bertrand, G., and Voronca-Spirt, (Mme.) C., presence and distribution of titanium in phanerogamic plants, A., 262*, 508.
- titanium in cryptogams, A., 385*, 823.
- presence and distribution of titanium in animals, A., 1203*.
- Bertrand, M. E., detection and determination of cobalt in special steels, B., 147.
- Bertsch, H., and Böhme Akt.-Ges. H. T., production of sulphonation products from polymerised fats or oils or the acids thereof, (P.), B., 431*.
- Bertsch, J. A. See Jaeger, A. O.
- "Berzelius" Metallhütten Ges.m.b.H., ore carrier for circular Dwight-Lloyd type blast-roasting apparatus, (P.), B., 954.
- Besborodov, M. A., effect of alumina and silica on some properties of glass, B., 905.
- Besborodov, M. A., and Silberfarb, L. M., chemical reactions in the melting of potassium borosilicate glass, B., 766.
- Besborodov, M. A. See also Beliankin, D. S.

- Bespolov, *I.*, anthracene from oil tar, *B.*, 5.
composition of cracked gasoline from Baku and Grozni, *B.*, 402.
technical xylene from distillation residues of light oils, *B.*, 543.
polymerising action of sulphuric acid on unsaturated hydrocarbons contained in light cracked oils, *B.*, 596.
composition of cracked gas oil, *B.*, 596.
purification of naphthalene, *B.*, 890.
decomposition of Surakhani crude oil and its distillates, *B.*, 890.
- Bessette, *L.*, manufacture of wine, sparkling wine, etc., (*P.*), *B.*, 261.
- Bessey, *G. E.*, glycerol method for determination of free lime, *B.*, 948.
determination of free calcium hydroxide in set cements; calorimetric method, *B.*, 949.
- Besson, *H.*, polarimetric determination of tartaric acid and malic acid by the formation of "emetics" with antimony salts, *A.*, 193.
- Best, *R. J.*, application of the quinhydrone electrode to the measurement of the acid reaction of unbuffered solutions, *A.*, 1124.
- Best, *R. J.*, and Cox, *A. B.*, Bredig silver hydrosol, *A.*, 155.
- Best Foods, Inc. See Hamilton, *J. C.*
- Bestelmeyer, *A.*, and Hartmann & Braun A.-G., optical pyrometer, (*P.*), *B.*, 1162.
- Bestuzhev, *M. A.*, Kuban crude oils, *B.*, 5.
- Besuglov, *V.* See Alpern, *D.*
- Bethe, *A.*, permeability of surface of marine animals, *A.*, 639.
- Bethe, *H.*, calculation of the electron affinity of hydrogen, *A.*, 132.
non-stationary treatment of the photo-effect, *A.*, 391.
theory of the Zeeman effect for salts of the rare earths, *A.*, 513.
transmission of rapid corpuscular rays through matter, *A.*, 972.
- Bethlehem Steel Co. See Shankland, *A. D.*
- Bétim, *A. P. L.*, Brazilian diamond fields, *A.*, 1016.
- Betrabet, *M. V.*, and Chakravarti, *G. C.*, sulphur-containing dyes. I. Derivatives of alkyl- and aryl-thioldiphenylmethane, *A.*, 605.
colour of complex diazoles. III. Reduced pyrrole-iminazole compounds, *A.*, 790.
colour of complex diazoles. IV. Constitution of Thiele's supposed *o*-benzylene-1:3-benziminazole, *A.*, 1449.
- Betterton, *J. O.*, and American Smelting & Refining Co., manufacture of white zinc chloride, (*P.*), *B.*, 1028.
- Betti, *M.*, optical rotatory power and chemical constitution, *A.*, 1095.
- Betti, *M.* [with Pratesi, *P.*], resolution of racemic aldehydes into their optical antipodes, *A.*, 776, 916.
- Beu, *W.* See Benrath, *A.*
- Beumée-Nieuwland, *N.*, coagulation of *Hevea* [rubber] latex, *B.*, 470.
- Beumée-Nieuwland, *N.* See also De Vries, *O.*
- Beumer, *H.*, and Bischoff, *G.*, formation of coprosterol, *A.*, 959.
- Beumer, *H.*, and Hepner, *F.*, source of ergosterol in the organism, *A.*, 1212.
- Beus, *E. M.* See Rawlings, *J. V.*
- Beutel, *E.*, and Kutzligng, *A.*, action of ferric chloride on zinc, *A.*, 176.
luminescence analysis, *A.*, 727.
adsorption of sulphide and oxide films by metallic surfaces, *A.*, 1246.
catalytic action of light on the efflorescence of some salts, *A.*, 1533.
surface dezincification of brass and tombak, *B.*, 147.
- Beutelspacher, *H.* See Meyer, *L.*
- Beuthe, *H.*, new weak lines in the *K*-series of the elements from vanadium to yttrium, *A.*, 513.
- Beuthe, *H.*, and Grosse, *A. von*, *L* series of element 91—protoactinium, *A.*, 655.
- Beuthner, *A.*, grids for gas purifiers, (*P.*), *B.*, 449.
- Beuthner, *K.*, Klönne, *M.*, and Klönne, *M.*, removing distillation products from the lower part of coke ovens or retorts, (*P.*), *B.*, 131.
- Beutler, *H.*, and Eisenschimmel, *W.*, quanta exchanges in collisions of the second order, *A.*, 1331.
energy and electron transfer in resonance in impacts of the second order between neutral particles, *A.*, 1492.
- Beutler, *H.*, and Rabinovitsch, *E.*, energy increase in elementary processes, *A.*, 126.
relations between rotation, heat tone, and effective cross-section of reaction in elementary chemical processes, *A.*, 975.
reactions of excited mercury atoms with hydrogen and with water, with special reference to the effective cross-sections of the reactions and the rotations of the mercurous hydride molecules produced, *A.*, 1083.
- Bewilogua, *L.* See Debye, *P.*
- Bewley, *W. F.*, and Bolas, *B. D.*, aucuba or yellow mosaic of the tomato plant: reaction of infected juice, *A.*, 385.
- Bewley, *W. F.* See also Bolas, *B. D.*
- Bews, *J. W.*, and Vanderplank, *J. E.*, storage and other carbohydrates in a Natal succulent and a Natal geophyte and their behaviour before, during, and after the winter resting season, *A.*, 1322.
- Bey, *L.*, analytical applications of reaction of ammonia with resorcinol in presence of cations, *A.*, 1545.
- Beyers, *E.* See Tromp, *F. J.*
- Beylier, *L. M.*, cement from limestones rich in sand, (*P.*), *B.*, 192.
- Beznák, *A. von*, state of the calcium in blood-serum of normal dogs and of parathyroidectomised dogs, *A.*, 1612.
amount of diffusible calcium in serum of normal and of parathyroidectomised dogs, *A.*, 1612.
effect of parathyroidectomy on rate of settling of red blood-corpuscles, *A.*, 1612.
- Bezradecki, *G. N.*, obtaining and preparing average samples of solid mineral fuels, *B.*, 354.
- Bezradecki, *G. N.* See also Indenbaum, *V. S.*
- Bezssonoff, *N.*, guinea-pigs fed on irradiated oats with and without addition of vitamin-A and -C, *A.*, 255.
vitamin-A and carotene, *A.*, 505.
- Bezenberger, *F. K.* See Harshaw, *W. J.*
- Bhaduri, *B.* See Singh, *B. K.*
- Bhagat, *K. L.*, and Rây, *J. N.*, 1:3:4-triazoles, *A.*, 1598.
- Bhagavantam, *S.*, magnetic and optical properties of the benzene ring in aromatic compounds, *A.*, 136.
Raman effect, fluorescence, and colour of diamonds, *A.*, 1091.
polarisation of the lines in Raman spectra, *A.*, 1236.
Raman spectra of some elements and simple compounds, *A.*, 1237.
Raman effect and molecular structure, *A.*, 1237.
influence of polymerisation and molecular association on the Raman effect, *A.*, 1238.
Raman effect in hydrogen sulphide, *A.*, 1344.
Raman effect and crystal structure of diamond, *A.*, 1345.
Raman effect, *A.*, 1498.
- Bhagavantam, *S.*, and Venkateswaran, *S.*, Raman effect with optically active substances, *A.*, 275.
Raman spectra of some organic halogen compounds, *A.*, 840.
- Bhagavantam, *S.* See also Venkateswaran, *S.*
- Bhagwat, *W. V.*, and Dhar, *N. R.*, basicity and constitution of some inorganic acids from electrical conductivity and coagulation experiments, *A.*, 164.
dissociation constants of some inorganic acids from solubility measurements, *A.*, 419.
- Bhagwat, *W. V.* See also Dhar, *N. R.*
- Bhargava, *K. K.*, Zamaron's method of clarifying molasses for analytical purposes, *B.*, 30.
- Bhargava, *S.*, scattering of X-rays by bound electrons, *A.*, 1334.
- Bhatia, *L. S.*, and Ghosh, *S.*, adsorption by titanium hydroxide sol, *A.*, 1514.
- Bhatia, *L. S.*, Ghosh, *S.*, and Dhar, *N. R.*, dialysis, ultrafiltration, and coagulation of molybdic acid, *A.*, 154.
- Bhatia, *S. L.*, behaviour of adsorbed electrolytes in direct- or alternating-current electrolysis, *A.*, 287.
- Bhatnagar, *M. C.* See Yajnik, *N. A.*
- Bhatnagar, *S. S.*, and Bahl, *D. C.*, effect of dilution and non-electrolytes on the charge of emulsion particles and the mixing of sols, *A.*, 291.
- Bhatnagar, *S. S.*, and Mathur, *K. G.*, chemiluminescence of the antimony halides, *A.*, 1238.
- Bhatnagar, *S. S.*, Mathur, *K. N.*, and Jain, *B. D.*, magneto-rotatory behaviour of some optically active substances in solution, *A.*, 980.
- Bhatnagar, *S. S.*, and Mathur, *R. N.*, effect of crystalline structure on magnetic susceptibilities of a new magnetic balance based on the principle of interference of light, *A.*, 143.

- Bhatnagar, S. S., Mathur, R. N., and Mal, R. S., magnetism and molecular structure. I. Magnetic susceptibilities of some liquid organic isomerides, A., 1096.
- Bhatnagar, S. S., and Singh, B., aromatic disulphides and Sugden's parachors. IV., A., 1349.
- Bhatt, L. A., and Watson, H. E. [with Patel, Z. H.], solidifying points of binary mixtures of fatty acids and esters, A., 1521.
- Bhattacharya, A. K., and Dhar, N. R., photochemical reaction between oxalic acid and chlorine in presence of hydrochloric acid, A., 175.
- temperature coefficients, quantum efficiency, and the relation between intensity and velocity of the hydrolysis of sucrose in visible and infra-red radiations, A., 555.
- photochemical reactions between hydroxylamine hydrochloride and iodine and hydrazine hydrochloride and iodine, A., 1384.
- kinetics, temperature coefficients, and quantum yields of some photochemical reactions, A., 1384.
- photochemical reaction between sodium nitrite and iodine, A., 1533.
- chemical reactions in infra-red radiations. II., A., 1533.
- Bhattacharya, A. K. See also Dhar, N. R., and Ghosh, S.
- Bhattacharya, S. N. See Sarkar, P. B.
- Bhattacharyya, P. B. See Ghosh, J. C.
- Bhattacharyya, T. See Brahmachari, U.
- Bhide, B. V., velocity of esterification in mixed solvents, A., 1379.
- Bialon, K., manufacture of light-sensitive surfaces for use in colour photography, (P.), B., 533.
- Biasotti, A. See Honssay, B. A.
- Biazzo, R., and Chines, C., yellow mercuric oxide as acidimetric substance, A., 1143.
- Biber, W. A. See Bogatsky, W. D.
- Bicheroux, F. See Ries, P.
- Bichowsky, F. von, alkali metal [sodium] compound of a suboxide of titanium and derivatives therefrom, (P.), B., 12.
- titanium white, B., 68.
- Bichowsky, F. von, and Titania Corporation, production of titanium [dioxide], (P.), B., 418.
- Bickel, A., variations in the urinary C : N ratio of men on similar diets, A., 1471.
- Bickel, A., and Collazo, I. A., effect of a yeast concentrate, parenterally and enterally administered, on carbohydrate metabolism, A., 1061.
- Bickert, F. W., rapid determination of the bacterial content of meat products and sausages, B., 964.
- Bicking, G. W. See Shaw, M. B.
- Biczyn, J. See Lachs, H.
- Bidaire, M., preparation of white lithopone from incompletely purified zinc solutions, (P.), B., 469.
- Bidault, G., and Hinard, G., abnormal taste and odour of preserved foods, B., 438.
- Biddle, A., and United Products Corporation of America, composition of matter comprising resins and rubber in aqueous dispersion and their preparation; treatment of aqueously dispersed colloidal substances [rubber latex], (P.), B., 730*.
- Biedermann, H. See De Rudder, F.
- Bielenberg, W., physical properties and constitution of mineral lubricating oils, B., 849.
- Bielicki, W., yield of potato starch, B., 526.
- Bielschovsky, F., nucleic metabolism. XXIV. Enzymic fission of yeast-nucleic acid with liver nucleotidase for the production of purine- and pyrimidine-carbohydrate complexes, A., 1218.
- Bielschovsky, F. See also Angermann, M.
- Bierbrauer, E., significance of wetting and adsorption in flotation process, B., 149.
- Bierer, J. M., and Davis, C. C., relation between artificial ageing tests and natural ageing [of rubber], B., 70.
- Bierry, H., mannose and the protein-sugar residue of mammals and birds, A., 491.
- glycogen and carbohydrate reserves of the fasting animal, A., 637.
- [blood-]protein sugar, A., 1463.
- Bierry, H., and Gouzon, B., influence of p_H on a colour reaction of adrenalin, A., 941.
- Biesalski, E., modern fire extinguishers, B., 744.
- Biesalski, E., Kowalski, W. von, and Wacker, A., hydrogenation with fine foam and colloidal metals. II., A., 1133.
- Bigby, P. See Brown, G. G.
- Bigelow, H. E., and Philp, J. H., reduction of *m*-nitrobenzaldehyde with sodium arsenite, A., 775.
- Bigelow, H. E. See also McIntosh, D.
- Biggs, H. C. See Partridge, J. H.
- Bigiavi, D., reactions of the diazo hydrates, A., 83.
- Bigler, H. E. See Haag, V. W.
- Bigot Schärfe & Co., Chemische Fabrik G.m.b.H., extracting nicotine from tobacco in continuous operation, (P.), B., 532.
- Bigourdan, P. E., and Bebin, P., manufacture of copper sulphate, (P.), B., 188.
- Bigwood, E. J., micro-determination of sugar and its application to the study of blood-sugar, A., 103.
- unequal distribution of hydrogen and hydroxyl ions in cubes of gelatin in diffusion equilibrium with an electrolyte solution, A., 1250.
- Bigwood, E. J., and Wuillot, A., blood-sugar analysis by the method of Hagedorn and Jensen, A., 237.
- "unfermentable matter" in blood, A., 1463.
- Bihler, C. See Baumgärtel, T.
- Billmann, E., and Berg, N., reduction potential of alloxantins; preparation of alloxans and alloxantins, A., 1447.
- Billmann, E., and Klit, A., preparation and reduction potential of diethylalloxantin, A., 1447.
- Billmann, E., and Mygind, H. G., hydrogenation potential of dimethylalloxantin, A., 1193.
- Bijl, A. See Keesom, W. H.
- Bijl, H. J. van der, screening devices for liquids, (P.), B., 798.
- Bijlsma, U. G., methyl *p*-hydroxybenzoate (solbrol), A., 247.
- Bikov, I. E., inorganic nitrogen compounds in the sap of plants, A., 262.
- Billham, P. L. See Lyons & Co., Ltd., J.
- Billerey, F. A. L., [panel system for] electric heating [of buildings, etc.], (P.), B., 825.
- Billiet, V., twin crystals, A., 983.
- Billig, K. See I. G. Farbenind. A.-G.
- Billing, J. See Addy, C. W., and Brit. Celanese.
- Billinger, R. D. See Cantelo, R. C.
- Billinghurst, P. E., separation of alkalis from siliceous minerals, (P.), B., 987.
- Billiter, J., determination of absolute potential, A., 165.
- methods for the determination of absolute potentials, A., 296.
- production of continuous and seamless tubing by electro-deposition, B., 668.
- Billon. See Gulchard.
- Bills, C. E., and Cox, W. M. jun., isomerisation of ergosterol, A., 84.
- Bills, C. E., Cox, W. M., jun., and Steel, G. E., heat of combustion of ergosterol, isoergosterol, and cholesterol, A., 164.
- Bills, C. E., and McDonald, F. G., isomerisation of ergosterol, A., 1286.
- Bills, C. E., Massengale, O. N., and Frickett, P. S., factors determining ergosterol content of yeast. I. Species, A., 1067.
- Bills, C. E., and Wirick, A. M., prolonged feeding experiments with activated ergosterol. I., A., 647.
- Bills, C. E. See also McDonald, F. G.
- Bills, E. J. See Duff, J. C.
- Biloon, S. See Brand, E.
- Biltz, H., determination of arsenic, antimony, and tin, A., 1144.
- separation of lead and antimony, A., 1147.
- Biltz, K. See Kraus, P.
- Biltz, W., analytical weighing of alumina, A., 1148.
- zero volumes of crystallised organic substances, A., 1357.
- Biltz, W., and Juza, R., systematic doctrine of affinity. II. Thermal decomposition of platinic, platinous, and cupric sulphides, A., 861.
- Biltz, W., and Lemke, A. [with Meisel, K.], molecular and atomic volumes. XXII. γ -Aluminium oxide and spinels, A., 399.
- Biltz, W., and Sapper, A., molecular and atomic volumes, XXIII. Alkyl compounds of metals and metalloids, A., 399.
- Binder, J. L., Filby, E. A., and Grubb, A. C., triatomic hydrogen, A., 1085.
- Binder, R. L., sprayed molten metal coating process and results, B., 951.
- Bindphast Products, Ltd., and Greene, J. A., manufacture of bricks, blocks, etc., from loam or earth, (P.), B., 328.
- manufacture of solid bodies from disintegrated alabaster, gypsum, marl, etc., (P.), B., 375.
- [electrical] insulating material, (P.), B., 381.
- Bindphast Products, Ltd., and Hackford, J. E., hardening cement or binder, (P.), B., 60.

- Bindphast Products, Ltd. See also Greene, J. A.
- Bindschedler, R., [rotary apparatus for] manufacture of plates from asbestos or fibro-cement, (P.), B., 666.
- Binek, M. G., corrosion of monel metal and acid-resisting bronze, B., 772.
- Binet, L., and Fabre, R., distribution of quinine between erythrocytes and blood-plasma, A., 359.
- Binet, L. See also Blanchetière, A.
- Bingham, E. C., determination of the fluidity of water as a reference standard, A., 1244.
- Bingham, E. C., and Darrall, L. B., fluidities and densities of the octyl alcohols; association of liquids, A., 534.
- Bingham, E. C., and Figlioli, D., capillary siphons [for paper-ruling], B., 413.
- Bingham, E. C., and Fornwalt, H. J., association and constitution, A., 1096, 1244.
- Bingham, E. C., and Lowe, B., nature of flow, B., 1133.
- Bingham, E. C., and Thompson, R. R., correction in viscosimetry when using capillary tubes which have trumpet-shaped openings, A., 1266.
- Bingold, K., decomposition of blood pigment, A., 358.
- Bini, G., identification and determination of nitrates in water, B., 742.
- Binkele, H. E. See Trautz, M.
- Binmore, T. V. See Gibbons, W. A.
- Binns, F. W., and Virginia Smelting Co., stripping of [coloured] rags with sulphur dioxide, (P.), B., 186*.
- Binz, A., R  th, C., and Maier-Bode, H., [arsenic] derivatives of pyridine. VII. Stability of quinquivalent arsenic in the pyridine ring, A., 937.
- Binz, A., R  th, C., and Maier-Bode, H. [with Hohenstein, J.], [arsenic] derivatives of pyridine. V. Tautomerism of 2-hydroxypyridine-5-arsinic acid, A., 486.
- Binz, A., R  th, C., and Rost, A., biochemistry of pyridine derivatives. III. Comparison of pyridinearsinic acids with other arsenic compounds, A., 1213.
- Binz, A., R  th, C., and Wilke, G., biochemistry of pyridine derivatives. II. Tautomerism and biochemical action of arsenic acids of the pyridine series, A., 1213.
- Biquard, (Mlle.) D. See Lucas, R., and Ramart, (Mme.) P.
- Birch, C. H., apparatus for comminuting materials, (P.), B., 1135.
- Birch, F. See Weiss, P.
- Birch, R. E., forming pressure of dry-pressed refractories. I. Effect of pressure variations on the properties of green and dry bodies, B., 613.
- Birch, T. W., and Harris, L. J., redetermination of the titration dissociation constants of arginine and histidine with a demonstration of the "zwitter-ion" constitution of these molecules, A., 860.
- zwitter ions. I. Proof of the zwitter-ion constitution of the amino-acid molecule. II. Amino-acids, polypeptides, etc., and proteins as zwitter ions, with instances of non-zwitterion ampholytes, A., 1458.
- Birchall, T. See Imperial Chem. Industries, Ltd.
- Birkenbach, L., and Goubeau, J., trichloromethyl perchlorate, A., 1017.
- Birkenbach, L., and Huttner, K., ψ -halogens. VIII. Mobility of pseudo-halogen ions of cyanogen derivatives of volatile hydrides: OCN, SCN, SeCN, N(CN)₂, C(CN)₃, and mobility of azide ion, A., 876.
- Birkenbach, L., and Huttner, K. [with Stein, W., and Ensslin, F.], ψ -halogens. VI. Cyanogen derivatives of volatile hydrides, A., 876.
- Birkenbach, L., and Linhard, M., ψ -halogens. X. Dichlorodioxycyanogen, ethyl *N*-mono- and -di-chloroallophanate, and *N*-chloroallophanyl chloride. XI. Iodo-oxyecyanogen, di-iododioxycyanogen, and tri-iodocyanuric acid, A., 1564.
- Bircumshaw, L. L., drying of gas streams, A., 1395.
- Bird, E. W., and Hixon, R. M., sodium and potassium amalgam electrodes in solutions containing sodium chloride, potassium chloride, and sodium and potassium chlorides, A., 1254.
- Bird, L. F. See Anderson, W. T., jun.
- Birdsall, W. T., separating apparatus and method, (P.), B., 693.
- Birdseye, C. See Gen. Foods Co.
- Birett, W., chromium plating of metals, B., 63.
- modern electrolytic methods for the protection of metals from corrosion, B., 564.
- Birge, R. T., isotopes in band spectra, A., 1.
- determination of heats of dissociation by means of band spectra, A., 3.
- Birge, R. T., and Jeppesen, C. R., moment of inertia of hydrogen from Raman effect, A., 509.
- Birkholz, H. E., and American Air Filter Co., Inc., air filter, (P.), B., 695.
- Birmingham Aluminium Casting (1903) Co., Ltd., and Pritchard, P., heat exchanger or condenser, (P.), B., 443.
- Birmingham Electric Furnaces, Ltd., and Lobley, A. G., [rotary, heat-treatment] electric furnace, (P.), B., 380.
- heat fuses for use with electric and other furnaces, (P.), B., 955.
- Biroland, M., how does the copper-ion concentration influence the poisoning action of copper salt solutions for grain? A., 1485.
- Birosel, D. M., phenolic decomposition of mixed ethers; the velocity coefficient, A., 907.
- Birtley Iron Co., Ltd., and Bourke, (Hon.) B. L., [shaking-tables for] separation of dry materials, (P.), B., 886.
- Birtley Iron Co., Ltd., Bramwell, I. L., and Holmes, C. W. H., separation of dry materials, (P.), B., 125.
- [shaking-tables for] separation of dry materials, (P.), B., 886.
- Birtley Iron Co., Ltd., and Holmes, C. W. H., separation of dry materials, (P.), B., 86.
- Birtley Iron Co., Ltd. See also Bramwell, I. L., and Holmes, C. W. H.
- Birtwell, C., Clibbens, D. A., Geake, A., and Ridge, B. P., reactivity of plain and mercerised, or other swollen, cottons, B., 606.
- Birza, J. W., ternary systems and their relationship to the solubility of pharmaceutical preparations in glycerol, A., 1108.
- Bischitzky, F., recovery of tin and its associated metals from alloys, mechanical mixtures, and ores, (P.), B., 64*.
- Bischoff, C. See Kapfhammer, J.
- Bischoff, F., and Long, M. L., effect of insulin on blood-amino-nitrogen of the rabbit, A., 117.
- depletion of muscle-sugar by adrenaline, A., 961.
- Bischoff, F., Long, M. L., and Hill, E., cancer chemotherapy. IX. Reaction of the blood in cancer, A., 1309.
- Bischoff, F., Ullmann, H. J., Hill, E., and Long, M. L., hyperthermia induced by high-frequency electric current, A., 496.
- Bischoff, F. See also Long, M. L., and Maxwell, L. C.
- Bischoff, G., parathyroid hormone and ergosterol hypercalcaemia, A., 962.
- hydrogenation of the sterols of the faeces outside the intestine, A., 1219.
- action of the parathyroid hormone on the bone-calcium of the growing animal, A., 1479.
- Bischoff, G. See also Beumer, H.
- Bischoff, H., nutritive value of corned beef for rats, A., 1212.
- Bischoff, H. See also Scheunert, A.
- Bishop, F. See Mummery, W. R.
- Bishop, L. R., nitrogen content and "quality" of barley, B., 922.
- composition and determination of barley proteins. III., B., 926.
- prediction of extract [yielded by a barley as malt], B., 1087.
- Bishop, W. B. S., occurrence of metallic elements in biological material, A., 632.
- Biswas, B. See Kar, K. C.
- Biswas, N. N., and Dhar, N. R., chemiluminescence in the oxidation of fluorescent and non-fluorescent substances by hydrogen peroxide and ozone, A., 397.
- Bitner, F. G. See Bulkley, R.
- Bito, K. See Kobayashi, K.
- Bitter, F., diamagnetism of electrons in metals, A., 673.
- magnetic susceptibility of gases. I. Pressure dependence, A., 1102.
- magnetic properties of metals, A., 1505.
- Bitting, C. D. See Piccard, J.
- Bitucrete, Ltd. See Westrum, L. S. van.
- Bizot, M. G. M. G., developing kinematograph films sensitised with dichromated gelatin, (P.), B., 929.
- Bjerregaard, A. P., and Doherty Research Co., treatment of gasoline and the product thereof, (P.), B., 1141.
- Bj  rkst  n, J., synthesis of proteins by higher plants, A., 1482.
- Bj  rkst  n, J., and Himberg, I., r  le of ammonia in the synthesis of proteins in higher plants, A., 1626.
- Black, A. See Steenbock, H.
- Black, H. K., Praagh, G. van, and Topley, B., vapour pressure of solid nitrous oxide, A., 678.
- Black, I. A., Tesla-luminescence spectrum of benzene, A., 396.
- Black, I. A. See also Austin, J. B.
- Black, J. A. See Alliance Artificial Silk, Ltd.

- Black, J. C., and Contact Filtration Co., apparatus for clarifying and decolorising petroleum oil, (P.), B., 47.
- Black, J. C., McConnell, J. R., and Richfield Oil Co., purification of hydrocarbons, (P.), B., 1101.
- Black, J. G., dynamic atom model of the first eleven elements of the periodic table, A., 9.
- Black, J. G., Nash, W. G., and Poole, C. A., influence of argon and of hydrogen on the spectra of zinc vapour, A., 2.
- Black, O. F., Eggleston, W. W., and Kelly, J. W., toxicity of *Bikukulla formosa* (Western Bleedingheart), A., 1063.
- Black, O. F. See also Eggleston, W. W.
- Black, R. See Walker, T. K.
- Black, R. J., and Sinclair Refining Co., conversion of heavier [hydrocarbon] oils into lighter oils, (P.), B., 313.
- Blackett, P. M. S., and Henry, P. S. H., flow method for comparing the specific heats of gases. II. Theory of the method, A., 282.
- Blackett, P. M. S., Henry, P. S. H., and Rideal, E. K., flow method for comparing the specific heats of gases. I. Experimental method, A., 282.
- Blackett, P. M. S., and Rideal, E. K., measurement of relative specific heats of gases at high temperatures, A., 848.
- Blackie, A., determination of the calorific value of a small quantity of gas by the Union calorimeter, B., 356.
- Blackmond, W. C., chlorinating apparatus [for water], (P.), B., 963.
- Blackshaw, H. See Imperial Chem. Industries, Ltd.
- Blackwood, O. H., and Exline, P. G., lubrication of gas mains by means of oil fog, B., 89.
- Blättler, E., nitrogen metabolism in the musculature of animals deprived of carbohydrates, A., 1060.
- Blagden, J. W. See Howards & Sons, Ltd.
- Blagodarov, M., and Shevlyakov, V., corrosive action of petroleum, B., 890.
- Blagoveschenski, A. V., enzymic synthesis of raffinose, A., 1474.
- Blahetek, H., complete analysis of antimony ores, regulus, and alloys, B., 195.
- Blair, A. W. See Prince, A. L.
- Blair, G. W. S., flow of viscous and plastic materials along an initially empty long narrow glass tube, A., 1244.
- Blair, G. W. S., rheology of soil pastes, B., 385.
- Blair, G. W. S., influence of the proximity of a solid wall on the consistency of viscous and plastic materials, B., 844.
- Blair, G. W. S. See also Keen, B. A., and Schofield, R. K.
- Blair, H. A., spark spectra of silver and palladium (Ag II and Pd II)—an extension, A., 1227.
- Blair, H. A. See also Shenstone, A. G.
- Blair, Campbell, & McLean, Ltd., and Hutchin, S., [apparatus for] washing of pulp [for use as filtering-medium], (P.), B., 554.
- Blair, H. A., drying of [expressing liquid from] pulp, etc., (P.), B., 798.
- Blake, E. S. See Blicke, F. F.
- Blake, F. C. See Foote, F. G.
- Blake, F. W. See Steely, D. G.
- Blake, J. T., vulcanisation of rubber. I. Thermochemistry of vulcanisation of rubber. II. Vulcanisation of rubber with nitro-compounds. III. Kinetics of vulcanisation of rubber with sulphur and selenium, B., 829.
- Blake, J. T. See also Boggs, C. R.
- Blakeley, J. D., Preston, J. M., and Scholefield, F., determination of active chlorine in hypochlorite liquors, B., 860.
- Blakey, J. B., [bull-nose] tiles, (P.), B., 715.
- Blanc, A., photo-electric phenomena of solutions of potassium ferrocyanide, A., 546.
- Blanc, G. A., production of potash alum from leucite, (P.), B., 324.
- Blanchard, E. See Chaussin, J.
- Blanchetière, A., hydrolysis of wheat gliadin by pepsin and trypsin in relation to the formation of diketopiperazines, A., 100.
- Blanchetière, A., and Binet, L., nature of the toxic product arising from closure of the intestine, A., 366.
- Blanchetière, A., and Pilot, J. M., colorimetric determination of small quantities of cobalt and potassium, A., 1393.
- Blanchon, H. See Grignard, V.
- Blanck, E., "terra rossa" as solution residue of marine limestones, A., 732.
- Blanck, E. [with Keese, H., and Klander, F.], influence of stones in soil on plant growth, B., 680.
- Blanck, E., and Dörfeldt, W., Spanish red-earths, A., 1398.
- Blanck, E., nature of "Kuhlerde" and its action on marsh soils, B., 681.
- Blanck, E., and Klander, F., crop experiments with "Kalkamonsalpeter," B., 296.
- Blanck, E., and Oldershausen, E. F. von, influence on plant growth of the addition to sand of clays of varying composition, B., 296.
- Bland, J., separation of minerals [containing flat and granular particles], (P.), B., 693.
- Blank, F., cohesion limits of rock-salt crystals, A., 845.
- Blank, F., and Smekal, A., influence of very slight impurities on the cohesion limits of rock-salt crystals, A., 675.
- Blank, I. H., and McLaughlin, G. D., sheep skin defects, B., 472.
- Blanken, P. L. See Böeseken, J.
- Blankenstein, A., colorimetric determination of the cystine content of proteins, A., 828.
- Blankenstein, A., and Fischer, A., chemical constitution of serum- and tissue-proteins. II, A., 1305.
- Blankenstein, A. See also Fischer, A.
- Blaringhem, A. J. A., and Société Anonyme d'Eclairage & d'Applications Electriques, extraction of krypton and xenon from oxygen, (P.), B., 905*.
- Blas, L. See Bermejo, L.
- Blasberg, K. See Weitz, E.
- Blasberg, R., producing a protecting layer on chromo baths for preventing formations of chromo mists, (P.), B., 516.
- Blaschke, E., wet treatment of skein yarns, particularly of artificial silk, (P.), B., 987.
- Blaschko, H. See Meyerhof, O.
- Blaszowska-Zakrzewska, (Mme.) H., rate of evaporation of liquids from a heated metallic surface, A., 1366.
- Blatch, F. H., McLean, H. L., and Menzies, W. C., coal-washing apparatus, (P.), B., 545.
- Blatchford Calf Meal Co. See Hazle, A. J., jun.
- Blaton, J., intensity of multiple lines in the Balmer series, A., 649.
- Blau, E., high-pressure compressors for ammonia synthesis. I-III, B., 321.
- Blaustein, W. See Moser, L.
- Blaw-Knox Co. See Dyrssen, W.
- Blayden, H. E., and Davies, C. W., calculation of activity coefficients from solubility measurements: thalious chloride, A., 860.
- Blazsó, A. See Simon, A.
- Bleach Process Co. See Wheeler, F. G.
- Bleakney, W., probability and critical potentials for the formation of multiply-charged ions in mercury vapour by electron impact, A., 391.
- Bleakney, W., ionisation of hydrogen by single electron impact, A., 969.
- Bleecker, W. F., and Clark, E. A., paint, varnish, and enamel and their production, (P.), B., 726.
- Bleeker, W., intensity relation of resonance and inter-combination lines of calcium, A., 1227.
- Bléger, J. See Sabctay, S.
- Bleil, C. J., mixing apparatus, (P.), B., 537.
- Bleil, C. J., dryer, (P.), B., 745.
- Blessing, R. L., clay sewer-pipe manufacture. X. Measurement of moisture loss in kilns, B., 947.
- Bleyberg, W. See Holde, D.
- Bleyer, B., and Braun, W., degradation of dextrose by oxidation. IV., A., 196.
- Bleyer, B., and Diemair, W. [with Sichert, K.], nitrogen balance in brewery mashies and spent washes. I. Electrolyte precipitation of protein substances in brewery mashies, B., 835.
- Bleyer, B., Diemair, W., and Tahsin, S., distillery problems. I. Technical fermentation of raisins. I., B., 117.
- Blicke, F. F., and Blake, E. S., local anæsthetics in the pyrrole series. I., A., 350.
- Blicke, F. F., and Powers, L. D., reducing action of aliphatic Grignard reagents, A., 85.
- Blicke, F. F., and Smith, F. D., action of aromatic Grignard reagents on arylarsine oxides, A., 99.
- Blicke, F. F., diarsines. III. Di-iododiarlyldiarsines, A., 1301.
- Blicke, F. F., Weinkauff, O. J., and Hargreaves, G. W., diarsines. II. Tetra-aryldiarsines, A., 486.
- Blin, M. See Samec, M.
- Blinks, L. R., protoplasmic potentials in *Halicystis*, A., 113.
- Blinks, L. R., and Jacques, A. G., cell sap of *Halicystis*, A., 1325.
- Blish, M. J., report on methods of analysis [for cereals], B., 31.
- Blish, M. J., and Hiles, B. D., rapid and simple carbide method for determining moisture in flour, B., 836.
- Blish, M. J., and Sandstedt, R. M., nature of the protein extracted from wheat flour by hot alcohol, B., 214.
- Blish, M. J., nature and identity of wheat glutenin, B., 637.

- Blish, *M. J.* See also Mussehl, *F. E.*
- Blittersdorf, *H.*, optical properties of potassium lithium sulphate, A., 842.
- Blizniukov, *V. I.* See Valiaschko, *N. A.*
- Bloch, *B.*, pigment formation, A., 248.
- Bloch, *B. M.* See Errera, *J.*, and Redisch, *W.*
- Bloch, *E.* See Bloch, *L.*
- Bloch, *F.*, electrical resistance law at low temperatures, A., 141.
- theory of ferromagnetism, A., 673.
- Bloch, *L.*, and Bloch, *E.*, spark spectra of selenium and tellurium, A., 651.
- measurement of the spark spectrum of iodine, A., 830.
- Bloch, *O.*, and Hamer, *F. M.*, optical and photographic properties of sensitising and desensitising dyes of the cyanine and related types, B., 928.
- Block, *D. J.*, and Stein, *W. D.*, starch conversion product, (P.), B., 163*.
- Block, *H. W.*, effect of method of rendering on the refractive index of fats, B., 382.
- Block, *H. J.* See Vickery, *H. B.*
- Blodgett, (*Miss*) *K. B.* See Langmuir, *I.*
- Blösch, *J.*, influence of adrenaline on galactose assimilation of the liver, A., 961.
- Blom, *A. V.*, sedimentation, A., 690.
- material testing in the service of paint technology, B., 68.
- viscosity and plasticity, B., 124.
- producing pigmentary base products for lead paint, (P.), B., 156.
- Blood, *J. W.*, and Shaw, *B. D.*, reactivity of halogen atoms in compounds of the pyridine series. I. Halides of 2-stilbazole, A., 615.
- Bloomenthal, *S.*, ultra-violet lead oxide band system, A., 11.
- vibrational quantum analysis and isotope effect for the lead oxide band spectra, A., 270.
- Bloomenthal, *S.* See also Christy, *A.*
- Bloor, *W. R.*, Okey, *R.*, and Corner, *G. W.*, relation of lipins to physiological activity. I. Changes in the lipin content of the corpus luteum of the sow, A., 636.
- Bloor, *W. R.*, and Snider, *R. H.*, neutral fat of liver and other tissues of the ox, A., 1057.
- Bloor, *W. R.* See also Okey, *R.*
- Blott, *J. F.* See Colas Products, Ltd.
- Blow, *C. M.*, viscosity of rubber solutions, B., 727.
- Blow, *C. M.* See also Stamberger, *P.*
- Bloxam, *H. C. L.* See Dunn, *J. T.*
- Blum, *E.* See Waldschmidt-Leitz, *E.*
- Blum, *L.*, and Grabar, *P.*, sodium and chlorine content of organs in uræmia, A., 1059.
- Blum, *W.* See Farber, *H. L.*, Hull, *R. O.*, and Thomas, *C. T.*
- Blumann, *A.*, [auto-oxidation of cedrene], A., 1592.
- Blumann, *A.*, and Schulz, *L.*, oil of frankincense, B., 440.
- Blumberger, *J. S. P.*, catalytic decomposition of diazo-compounds with copper sulphide, A., 467.
- Blum-Bergmann, *O.* See Bergmann, *E.*, and Schlenk, *W.*
- Blume, *F.* See Morgan, *A. F.*
- Blume, *W. R.* See Dreyfus, *C.*
- Blumenberg, *H., jun.*, manufacture of aluminium chlorosulphate, (P.), B., 12.
- filtering material, (P.), B., 946.
- Blumenberg, *H., jun.* See also Buley, *A. M.*
- Blumendal, *H. B.* See Nieuwenberg, *C. J. van.*
- Blumenfeld, *J.*, separation of titanium dioxide hydrate from hydrolysable solutions of titanium salts, (P.), B., 143.
- production of oxides of titanium, (P.), B., 765.
- Blumenstock-Halward, *E.*, and Riesz, *E.*, trimercapto- β -naphthol, A., 210.
- Blumer, *L.* (Blumer Chemische Fabrik, *L.*), preparation of oil paints, (P.), B., 1164.
- Blumer Chemische Fabrik, *L.* See Blumer, *L.*
- Blumgart, *H. L.* See Gargill, *S. L.*
- Blum-Sapas, *E.* See Woker, *G.*
- Blumstein, *S. N.*, determination of nitrogen in gaseous mixtures, A., 311.
- Blundell, (*Miss*) *E.* See Davies, (*Miss*) *A. C.*
- Blundell, *H. A.*, and Blundell Bros. (Luton), Ltd., dyeing machinery, (P.), B., 1149.
- Blundell Bros. (Luton), Ltd. See Blundell, *H. A.*
- Blunt, *K.* See Coons, *C. M.*, and Whitacre, *J.*
- Bluth, *M.* See Reinkober, *O.*
- Bly, *R. S.*, and Cutler-Hammer, Inc., manufacture of aniline-sulphur [thermoplastic] resin, (P.), B., 1120.
- Blyth, *M. W.* See Newton Chambers & Co., Ltd.
- Blythe, *G. E. K.*, burners for pulverised fuel, (P.), B., 1057.
- Blyumshtein, *Z. N.*, determination of nitrogen in gaseous mixtures, A., 1010.
- Boardman, *L. J.* See Nichols, *E. L.*
- Boas, *F.*, action of ions and work of cells, A., 252.
- Boas, *W.*, and Schmid, *E.*, plasticity of crystals, A., 23.
- fracture of [plastic] deformed cadmium crystals, A., 529.
- dependence on temperature of crystal plasticity, A., 845.
- Bobinska, *J.* See Swientoslawski, *W.*
- Bobjak. See Wartenberg, *H. von.*
- Bobranski, *B.*, and Sucharda, *B.*, apparatus for the absorption of carbon dioxide in elementary analysis, A., 1151.
- Bobrov, *P.*, composition of gum-resin, B., 384.
- Bobtelski, *M.*, production of chlorine from concentrated hydrochloric acid in presence of complex catalysts; potassium chromate as oxidising agent, A., 714.
- velocity of reaction of chromic acid and hydrogen iodide in presence of neutral electrolytes, A., 1001.
- Bobtelski, *M.*, and Kaplan, *D.*, velocity of reaction between sodium nitrite and potassium iodide in acetic acid solution in presence or absence of added substances, A., 710.
- Bobtelski, *M.*, and Rosovskaja-Rossienskaja, *R.*, velocity of oxidation of hydrogen iodide with arsenic acid in presence of acids and salts, A., 1001.
- Boby, *W.*, and Boby & Co., Ltd., de-aerating water at atmospheric pressure, (P.), B., 888.
- Boby & Co., Ltd., *W.* See Boby, *W.*
- Bochvar, *A.*, dependence of the minimum temperature of recrystallisation on the fundamental characteristic values of solids, A., 140.
- Bock, *A. V.*, Dill, *D. B.*, Edwards, *H. T.*, Henderson, *L. J.*, and Talbot, *J. H.*, partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air, A., 102.
- Bock, *A. V.* See also Henderson, *L. J.*
- Bock, *L. H.*, Moyer, *W. W.*, and Adams, *R.*, stereochemistry of diphenyl compounds. V. Preparation and resolution of 2:4:6:2':4':6'-hexanitrodiphenyl-3:3'-dicarboxylic acid, A., 914.
- Bock, *L. H.* See also Rossander, *S. S.*
- Bock, *O.* See Saner, *E.*
- Bockmühl, *M.* See Lautenschläger, *C. L.*
- Bodansky, *M.*, conversion of cyanide into thiocyanate in man and in alkaline solutions of cystine, A., 244.
- Bodansky, *M.*, Schwab, *E. H.*, and Brindley, *P.*, creatine metabolism in generalised myositis fibrosa, A., 241.
- Boddy, *R. G. H.*, coal rich in spores; winter seam, Nostell Colliery, Yorkshire, B., 225.
- Bode, (*Mlle.*) *E.* See Chavanne, *G.*
- Bode, *H.*, refraction of light by alkali hydrides, A., 276.
- lignin theory [of the origin of coal], A., 570.
- Bode, *H.*, and Lieske, *R.*, [lignin theory of the origin of coal], A., 1017.
- Bodea, *C.* See Weichherz, *J.*
- Bodemann, *E.*, regulation of thermionic-electric current from oxide-covered metallic foils by irradiation with ultra-violet light, A., 6.
- Boden, *R. H.*, polish [for woodwork, linoleum, etc.], (P.), B., 725.
- Bodendorf, *K.*, condensations with dimethyldithiocarbamic acid, A., 754.
- dithiocarbamic acids, A., 898.
- anomalies in perbenzoic acid oxidations, A., 1579.
- Bodendorf, *K.*, and Kownatzki, *A.*, determination of sugar in urine, A., 364.
- Bodendorf, *K.* See also Boehm, *T.*
- Bodenstein, *M.*, glass valve not requiring grease, A., 730.
- scientific principles of photochemistry, A., 1382.
- manufacture of hydrogen peroxide in concentrated solution, (P.), B., 282.
- Bodenstein, *M.*, and Günther, *P.*, thermal dissociation of carbon tetrachloride, A., 994.
- Bodenstein, *M.*, Hahn, *O.*, Hönigschmid, *O.*, and Meyer, *R. J.*, report of the German Commission on atomic weights. X., A., 269.
- Bodenstein, *P.*, and Krupp Grusonwerk Akt.-Ges., *F.*, discharge means for tube or ball mills, (P.), B., 493*.
- Bodewig, *J.*, process and apparatus for recovery of volatile solvents, B., 39.
- Bodinus, cacao oil, B., 23.
- Bodman, *G. B.*, and Tamachi, *M.*, soils in the plastic state, B., 1082.

- Bođnár, J., and Gervay, W., determination of the content of toxic substance in insecticides, etc. V. Volumetric determination of formaldehyde in seed fungicides, B., 525.
- Bođnár, J., and Terényi, A., rust diseases of cereals. II. Adsorption of copper by rust spores (*Tilletia tritici*, Bjerk., Winter) of wheat, A., 648.
- Bođrero, B., fertiliser with a base of phosphate and sulphur, (P.), B., 1083*.
- Boeck, W. C., and Yater, W. M., xanthemia and xanthosis (carotenemia), A., 1012.
- Boeckner, C., resonance and quenching of the third principal series line of caesium, A., 1076.
- Boeckner, C. See also Mohler, F. L.
- Boedecker, F., barbituric acid derivative, (P.), B., 83*.
- Böeseken, J., difference in the action of peracids on pyrogallol under the influence of peroxidase, A., 909.
- Böeseken, J., and Gaster, A., action of benzoyl peroxide on saturated hydrocarbons, A., 316.
- Böeseken, J., Krimpen, J. van, and Blanken, P. L., catalytic reduction of α - and β -elaeostearic acids under the influence of nickel, A., 451.
- Böeseken, J., and Slooff, G., action of peracetic acid on θ -diketo-stearic acid, benzil, 1:2-naphthaquinone, and α -benzoquinone, A., 322.
- action of peracetic acid on the acetylenic linking, A., 322.
- formation of *cis-cis*-muconic acid from α -benzoquinone with peracetic acid, A., 322.
- action of peracetic acid on naphthalene, A., 334.
- Böeseken, J., Vermaas, N., and Küchlin, A. T., composition and acidity of glycol-boric acids, A., 1018.
- Böeseken, J. See also Küchlin, A. T.
- Böhlig, R., manufacture of calcium sulphite liquors, (P.), B., 143.
- Böhm, E., treatment of felt and felt-hat bodies, (P.), B., 11.
- stabilising hydrogen peroxide solution with "nipagin" [methyl *p*-hydroxybenzoate], B., 140.
- [carroting] treatment of animal hair and wool with chlorine, (P.), B., 555*.
- increasing the lustre of goods made of animal hair or wool, (P.), B., 709*.
- Böhm, E. See also Sabalitschka, T.
- Boehm, G., action on muscle of perchlorates, fluoroborates, and fluorosulphonates, A., 246.
- Boehm, G., and Schotzky, K. F., X-ray diagram of muscle contraction, A., 637.
- Boehm, G. See also Kramer, M. M.
- Böhm, J. See Böhm, V., and Hevesy, G. von.
- Böhm, R. See Böhm, V.
- Boehm, R. M., [manufacture of wood pulp board, etc., by] the Masonite process, B., 654.
- Boehm, T., Knoevenagel condensation of aromatic aldehydes with malonic acid, and Rodionov's β -amino- β -arylethane- α -dicarboxylic acids, A., 88.
- Boehm, T., and Bodendorf, K., detection of isopropyl alcohol in alcoholic pharmaceutical preparations, B., 531.
- Böhm, V., Böhm, J., Böhm, R. (Böhm Brüder), and Goldarbeiter, H., bleaching sensitive vegetable and animal fibres and materials, more particularly feathers, skins, pelts, and hairs (bristles) by treatment with oxidising bleaching agents, (P.), B., 761.
- Boehm, V. J., simplified practice of mixing coloured glazes, B., 613.
- Böhm, W. See Schürmann, E.
- Böhm Brüder. See Böhm, V.
- Böhme Akt.-Ges., H. T., enhancing the action of treatment liquids employed in the textile industry, (P.), B., 54, 321.
- increasing the wetting property of treatment liquids, (P.), B., 135.
- preparations suitable as washing, wetting, emulsifying, solvent, and similar agents, particularly in connexion with textiles, (P.), B., 237.
- improving the [wetting-out] action of treatment liquids in the textile industry, (P.), B., 280.
- increasing the wetting and penetrating capacity of liquors employed in the textile industry, (P.), B., 505.
- preparations for finishing textile fabrics, (P.), B., 506.
- preparation of fatty sulphonic acids and wetting, cleaning, and emulsifying agents therefrom, (P.), B., 548.
- production of substances which may be used in the textile, leather, and allied industries as wetting, cleaning, foaming, and dispersion agents, (P.), B., 809.
- wetting agents, (P.), B., 986.
- cleavage of fatty acid esters, (P.), B., 997.
- Böhme Akt.-Ges., H. T., production of esters [of sulphonated higher fatty acids, etc.], (P.), B., 1058.
- Böhme Akt.-Ges., H. T., See also Bertsch, H.
- Böhmer, W., protection of iron from rust, (P.), B., 1114.
- Boehringer, A., preparation of ketones of the pyridine and quino-line series, (P.), B., 640.
- preparation of disubstituted tetrazoles, (P.), B., 754.
- preparation of lobelia alkaloids, (P.), B., 1004.
- preparation of pyridylalkines and piperidylalkines, (P.), B., 1058.
- Boehringer, A. (Boehringer Sohn, C. H.), and Schopf, C., manufacture of a product of therapeutic value from dihydrocodeinone, (P.), B., 264.
- Boehringer Sohn, C. H. See Bohringer, A.
- Boehringer Sohn Chem. Fabr., C. H. See Wieland, H.
- Boehringer & Söhne, G.m.b.H., C. F. See I. G. Farbenind. A.-G.
- Boekenoggen, H. A. See Ruzicka, L.
- Boekholt, K., effect of different fertilisers on the composition of the crop and the structure of the leaves of barley and wheat, B., 876.
- Boelsing, F. See Chuit, P.
- Bömcke, K., and Deutsche Erdöl A.-G., gas-purifying apparatus, (P.), B., 1051*.
- Bömer, M., effect of some tetanic poisons on sugar and lactic acid content of blood, A., 640.
- Boerder, A., tyre mould, (P.), B., 71.
- Börnstein, H., and Naamlooze Vennootschap Nederlandsche Linolenmfabr., manufacture of coverings for floors, walls, etc., (P.), B., 420.
- Böttger, O. See Scholl, R.
- Böttger, S. See Helferich, B., and Spengler, O.
- Böttger, W. [with Schall, (Frl.) B. M.], sensitivity of chemical reactions, A., 1545.
- Bogatsky, W. D., Biber, W. A., and Kischinewskaja, L. G., discoloration and corrosion of the inner surfaces of containers for canned foods, B., 483.
- Bogdandy, S. von. See Polanyi, M.
- Bogdanov, I. F. See Ipatiev, V. N.
- Bogen, E., composition of cigarettes and cigarette smoke, B., 347.
- Bogert, M. T., and Greenberg, I. W., unsaturated ketonic acids. III. Behaviour of Pechmann dyes with amines; some di-iminoethers of diphenacylfumaric and diphenacylmaleic acids and their tinctorial properties, A., 473.
- Bogert, M. T., and Hasselström, T., action of ultra-violet light on terpenes. I. Action on citronellal, A., 1590.
- Bogert, M. T., Hirscheider, A. D., and Lauffer, P. G. I., acridine derivatives; synthesis of isomerides of proflavine and of neutral acriflavine, A., 1047.
- Bogert, M. T., and Howells, H. P., acyl-*p*-quinones; contribution to the solution of the "Pechmann dyes" problem, A., 477.
- Boggero, G. See "Cemsi" Soc. Anon. Ital.
- Boggiano-Pico, L., destructive fermentation of organic refuse, (P.), B., 345.
- Bogges, C. R., and Blake, J. T., vulcanisation of rubber. IV. Theory of vulcanisation of rubber, B., 829.
- Bogges, C. R., and Simplex Wire & Cable Co., electrical insulation, (P.), B., 516.
- Bogges, C. R. See also Wiegand, W. B.
- Bogitch, B., manufacture of blue glass and the decomposition of sodium sulphate by silica, B., 461.
- Bogod, M. See Lampitt, L. H.
- Bogoiavlenski, L., radioactivity of ash from certain crude oils, B., 596.
- Bogros, A., structure of the lithium line 6708, A., 829.
- saturation vapour pressure of lithium, A., 1244.
- saturation vapour pressure [and isotopes] of lithium, A., 1508.
- Bogtstra, J. F. See Honig, P.
- Bogue, R. H. See Brownmiller, J. T., and Lerch, W.
- Bohlender, H., manufacture of porous [heat- and sound-insulating bodies, (P.), B., 1030.
- Böhlén, O. G., manufacture of imitation leather having a natural grain, (P.), B., 1082.
- Bohn, E. See Helferich, B.
- Bohn, J. L., radioactive properties of rocks, soils, crude oil, and waters from Southern California, A., 1552.
- Bohner, H., Brinell hardness, elasticity, and tensile strength of ageable aluminium alloys, B., 62.
- Bohnstedt, R. See Moncorps, C.
- Bohstedt, G. See Hart, E. B.
- Boidin, A., analysis of bating materials, B., 919.

- Boidin, A., and Effront, J., production of bacterial enzyme preparations, (P.), B., 300*.
- Boie, H., acidimetric determination of theobromine in diuretin, calcium-diuretin, and in other theobromine preparations and mixtures, B., 1168.
- Bois Bakélisé, and La Bakelite, manufacture of moulded articles [from wood chips or sawdust and synthetic resin], (P.), B., 1039.
- Boiteux, R., continuous feeding of distillation apparatus by means of a siphon, A., 730.
- Boivin, A., micro-determination of carbon by sulphochromic oxidation and of nitrogen by treatment with sulphuric acid, A., 442.
non-identity of insulinoid of yeast and insulin, A., 646.
fractional dialysis of urine, A., 805.
non-dialysable fraction of urine, A., 805.
- Boivin, J. See Meesemaecker, R.
- Bojanovski, J. See Rabek, T. I.
- Boklund, U., decarboxylation of pyruvic acid. I., A., 1557.
- Bokor, R., microflora of forest soils, B., 160.
microflora of Hungarian alkali soils, B., 160.
- Bolam, T. R., influence of lyophilic colloids on the precipitation of salts; agar-agar and lead iodide. II., A., 414.
- Bolas, B. D., and Bewley, W. F., aucuba or yellow mosaic of the tomato: metabolism, A., 1484.
- Bolas, B. D. See also Bewley, W. F.
- Bolcato, V., formation of lactic acid by the oxidation of dextrose in the presence of animal charcoal, A., 892.
- Boldt, J., time and temperature of kilning [malt], B., 636.
- Boldyreff, A. W. See Willard, H. H.
- Boldyreva, A. M., crystallographic study of the diammines and tetrammines of palladium and platinum dichlorides, A., 139.
- Boleloucky, F., antagonistic action of calcium and magnesium ions on seeded peas, A., 262.
- Bolinger, M. G. See Newton, R. F.
- Bolliger, A. See Day, E. M.
- Bollman, J. L., creatine-creatinine metabolism, A., 243.
influence of protein metabolism on conversion of creatine into creatinine, A., 243.
- Bollman, J. L., and Mann, F. C., acidity of intestinal contents, A., 1204.
- Bollmann, H., production of uniform, pulverulent mixtures, (P.), B., 170, 1051*.
bleaching of fatty oils, mineral oils, etc., (P.), B., 569*.
purification of phosphatides [from soya beans, etc.], (P.), B., 1090*.
- Bollmann, H., and Foster, M. F., deodorisation of fats and fatty oils, (P.), B., 569*.
- Bollmann, H., and Rewald, B., production of bakery goods, pastries, confectionery, etc., (P.), B., 740.
production of chocolate, (P.), B., 792.
production of thickening materials for use in printing [of textile fabrics], (P.), B., 1063.
- Bollmann, H. See also Passek, F.
- Bollweg, B. See Gen. Aniline Works, Inc.
- Bolotin, M. N. See Britzke, E. V.
- Boltenstern, W. von. See Metallbank & Metallurg. Ges. A.-G.
- Boltina, M. W. See Uglow, W. A.
- Bolton, E. R., and Williams, K. A., grouping of fatty oils, with special reference to olive oil, B., 202.
composition and polymerisation of Chinese wood (tung) oil, B., 777.
- Bolton, J. A., and Hammersley, S. S., [apparatus for] mercerising, bleaching, or similar processes, (P.), B., 987.
- Bolton, J. W., and Weigand, S. A., effects of oxidation and certain impurities in bronze, B., 615.
- Boltz, F. S., drying, waste-heat recovery, and cooling system, (P.), B., 86.
- Bolyard, N. W., catalytic reduction of 1-phenyl- and 1-benzyl-4-piperidones, A., 786.
- Bolz, F. See Freudenberg, K., and Noll, A.
- Bomberg, F. See Weil, S.
- Bomberger, C. C., butter-composition test, (P.), B., 791.
- Bomhoff, L. J., and Slawson, M. G., septic sewage-disposal plant, (P.), B., 266.
- Bomke, H., preparation of hydrogen or hydrogen-nitrogen mixtures, (P.), B., 459.
- Bonamico, C. See Spicers, Ltd.
- Bonar, A. R. See Barratt, S.
- Bond, G. D. See Courtaulds, Ltd.
- Bond, M. See Widdows, S. T.
- Bonde, R. See Schultz, E. S.
- Bondi, A. See Bergmann, E.
- Bondy, H. F. See Staudinger, H.
- Bone, W. A., combustion of acetylene, A., 38.
gaseous combustion, A., 424.
catalytic reactions at high pressures, A., 867.
- Bone, W. A., Horton, L., and Ward, S. G., chemistry of coal. VI. Benzenoid constitution as shown by oxidation with alkaline permanganate, B., 846.
- Bonello, J., and Aubé, P., dismountable apparatus for the carbonisation and distillation of wood, (P.), B., 405.
- Bonhoeffer, K. F., and Reichardt, H., optical detection of the solubility of mercury in water, A., 285.
- Bonhoeffer, K. F. See also Reichardt, H.
- Bonhôte, G. See Soc. of Chem. Ind. in Basle.
- Bonhoure, A. See Zmaczynski, A.
- Bonhoure, M., determination of morphine in opium according to the method of the French Pharmacopœia, B., 82.
- Bonino, G. B., infra-red bands of hydrogen combined with carbon in the molecule of organic compounds, A., 12.
infra-red spectra. XIV. Band attributed to amino-nitrogen, A., 273.
- Bonino, G. B., and Brüll, L., Raman effect. I. Spectra of some halogenated hydrocarbons. II. Saturated and olefinic hydrocarbons. III. Aniline and dimethylaniline. IV. Pyridine and piperidine, A., 14.
Raman effect. V. Pinene and menthene, A., 134.
- Bonis, A., [constitution of] commercial "glyzines" [liquorice extracts], B., 217.
- Bonneau, L., composition of potassium sodium cobaltinitrite, A., 49.
- Bonner, W. D., and Masaki, K., recovery of iodine as sodium iodide from waste-iodine solutions, A., 722.
- Bonner, W. D., and Titus, A. C., composition of constant-boiling hydrochloric acid at pressures of 50 to 1220 mm., A., 405.
- Bonner, W. D., and Wallace, R. E., b. p. of constant-boiling hydrochloric acid, A., 849.
- Bonnet, C., Bonnet, G., and Bonnet, F. (Société Veuve Bonnet Aîné et ses Fils), machines for dyeing, washing, mercerising, or otherwise treating skeins of textile threads, (P.), B., 555.
- Bonnet, F. See Bonnet, C.
- Bonnet, G. See Bonnet, C.
- Bonnet, R., evolution of nitrogen during germination, A., 382.
- Bonnet, R. See also Terroine, E. F.
- Bonnicksen, C. W., and Barratt, S., production of flame or smoke for signalling, (P.), B., 4*.
- Bonnington, A., and Alton Barium Products Co., manufacture of [non-efflorescing] bricks, (P.), B., 1067.
- Bonsmann, F. See Schulz, E. H.
- Bonstedt, K., neoergosterol, A., 84.
- Bonz, C., photochemical formation of peroxide in ether, A., 1385.
- Boogaert, H. L. See Frahm, E. D. G.
- Boomer, E. H., natural gas, B., 227.
- Boomer, E. H., and Morris, H. E., formation of ethane in the catalytic decomposition of ethyl alcohol, A., 1268.
- Boor, A. K., crystallographic study of pure carbon monoxide-hæmoglobin, A., 358.
- Boor, A. K., and Bachem, A., carbon monoxide-hæmoglobin, A., 490.
- Boor, A. K., and Hektoen, L., preparation and antigenic properties of carbon monoxide-hæmoglobin, A., 1608.
- Boord, C. E. See Dykstra, H. B., and Swallen, L. C.
- Boorne, W. H., manufacture of moulded or rolled articles, (P.), B., 715.
- Bootella, A. See Madinaveitia, A.
- Booth, C. F., Gerber, A. B., Logue, P., and Federal Phosphorus Co., sodium borate-trisodium phosphate compound and its manufacture, (P.), B., 1109.
- Booth, C. F. See also Jenkins, R. L.
- Booth, H. S., baro-burette—a new accurate gas burette, A., 885.
- Booth, H. S., and Jones, N. C., baro-burette. II. Application to gas evolution methods of analysis, A., 1151.
- Booth, H. S., and McIntyre, L. H., barium oxide as a desiccant, A., 568.
- Booth, H. S., and Torrey, G. G., electro-deposition of beryllium, A., 1004.
- Booth, J. See Campbell, W. G.
- Booth, L. M., manufacture of pulp and paper, (P.), B., 1061.
- Booth, N., denaturation of proteins. VI. Titration of the basic and acidic groups in egg-albumin, A., 628.

- Booth, V., mixing machines, (P.), B., 491.
grinding and pulverising machines, (P.), B., 845.
- Boot's Pure Drug Co., Ltd., and Marshall, J., production of monohydric phenols, (P.), B., 883.
- Boot's Pure Drug Co., Ltd., and Pyman, F. L., production of α -diamino- β -ketobutane [-butanone] dihydrochloride and 2-thiol-4(5)- β -aminoethylglyoxaline, (P.), B., 440.
- Booy, J., explosive gas reactions. I., A., 1255.
- Booy, J. See also Jorissen, W. P.
- Boquet, A. See Nègre, L.
- Borchardt, E., Dingemanse, E., De Jongh, S. E., and Laqueur, E., female sexual hormone, menoformon, A., 1069.
- Borchardt, E. See also Loewe, Siegfried.
- Borchardt, H. See Pringsheim, H.
- Borchers, R. See Mansfeld Akt.-Ges. für Bergbau & Hüttenbetrieb.
- Borchers, W., and Stimson, R. W., alloys [containing iron, chromium, molybdenum, and uranium], (P.), B., 200*.
- Borchert, H. See Einstein, O.
- Bordas, F., and Roelens, E., alcoholometric corrections for temperatures below 0°, B., 582.
- Bordas, F., and Touplain, F., alcoholometry, B., 480.
- Bordet, J., and Renaux, E., influence of calcium on the evolution of cultures of the anthrax bacillus, A., 1219.
- Bordet, P., normal antithrombin and its relation to the production of thrombin by cytozyme or chloroform, A., 361.
action of chloroform on mammalian plasma and serum, A., 361.
influence of calcium on the characteristics of microbial species, A., 1219.
- Borelius, G., Keesom, W. H., Johansson, C. H., and Linde, J. O., thermo-electric force coefficient of some pure metals and alloys down to the temperature of liquid hydrogen and calculation of the Thomson effect, A., 682.
- Borelius, G. See also Wilner, T.
- Boreskov, G. K. See Adadurov, I. E.
- Borges, E. See Windiseh, W.
- Borgestad Fabrikker. See Goldschmidt, V. M.
- Borgia, A. See Sborgi, U.
- Borgstrom, P., Bost, R. W., and McIntire, J. C., action of refining agents on pentamethylene sulphide in naphtha solution, B., 176.
- Borgstrom, P., and Dewar, M. M., preparation of mercury diphenyl by the Grignard reagent, A., 99.
- Borgstrom, P., Dietz, V., and Reid, E. E., loss of mercaptan-sulphur in naphtha by use of inorganic salts and caustic soda, B., 543.
- Borgstrom, P., Ellis, L. M., jun., and Reid, E. E., preparation, properties, and reactions of lead mercaptides, A., 192.
- Borgstrom, P., Roseman, R., and Reid, E. E., distillation of naphthas containing mercaptans by steam, with and without reagents, B., 543.
- Borgstrom, P. See also Gardner, J. H.
- Borissov, P. P., catalytic reduction of α -picoline to pipercoline, A., 1444.
- Borissov, P. P. See also Zelinski, N. D.
- Borissovski, V., and Vedenski, N., inhibition of enzyme action; influence of organic fatty acids on the hydrolysis of starch by human saliva, A., 633.
surface activity of human saliva, A., 633.
- Borje, E. See Heymann, E.
- Borland, C. R., and American Powder Co., manufacture of smokeless powder, (P.), B., 930.
- Bormuth, C. See Schaefer, C.
- Born, G. See Spilker, A.
- Born, M., theory of nuclear disintegration, A., 9.
quantum theory of chemical valency, A., 1239.
quantum theory of chemical forces, A., 1496.
- Bornand, E., and Schlaepfer, H. A., electric furnace, (P.), B., 516*.
- Bornstein, A., rôle of the liver and of the intestine in the decamination of amino-acids, A., 110.
- Bornstein, A., and Budelmann, G., ammonia formation in the kidney, A., 494.
excretion of alcohol and ether by the kidneys, A., 813.
- Bornstein, A., and Mayer, Hermann, production of acetaldehyde in the liver. I., A., 1614.
- Bornstein, A., and Pantke, R., production of acetaldehyde in the liver. II. Carbohydrates and related substances as aldehyde producers, A., 1614.
cyanic acid as an intermediate product in amino-acid metabolism, A., 1614.
- Bornstein, A., and Roese, H. F., ammonia and sugar metabolism of surviving organs under the influence of poisons inhibiting oxidation, A., 109.
- Borodulin, M., action of alkali solutions on leather, B., 294.
thermal treatment of castor oil, B., 1119.
- Borovik, S. A. See Ussanovitsch, M. I.
- Borrel, C. H. R. See Cornubert, R.
- Borsche, W., [1:3:4:5-tetranitrobenzene], A., 759.
- Borsche, W., and Niemann, J., [Hoesch syntheses with thiocyanobenzene], A., 87.
- Borsook, H., and MacFadyen, D. A., effect of isoelectric amino-acids on the pH of a phosphate buffer solution, A., 860.
- Borsook, H., MacFadyen, D. A., and Wasteneys, H., substrate in peptic synthesis of protein, A., 373.
- Borsook, H., and Winegarden, H. M., free energy of dextrose and tripalmitin, A., 1613.
- Bortels, H. See Lemmermann, O.
- Boruchovitsch, S. M. See Brodski, A. I.
- Boruff, C. S. [with Buswell, A. M.], fermentation products of cellulose, B., 117.
fermentation products from cornstalks, B., 1043.
- Borzyne, A., and Marchlewski, L., absorption of ultra-violet light by methoxybenzoic acids, A., 518.
- Boryschanskaja, F., and Landsberg, G., combination scattering in absorption and Fraunhofer lines, A., 664.
- Borzykowski, B., production of artificial silk, etc., (P.), B., 413.
treatment of artificial silk, (P.), B., 814*.
- Bosch, A. ten, removal of liquid from peat, coal-mud, or similar watery substances, (P.), B., 597.
- Bosch, F. X. See Halla, F.
- Bose, D. M., diamagnetic simple salt of nickel, A., 673.
- Bose, P. K., and Nandi, B. K., thiodiazines. VI., A., 1453.
- Bose, S. R., relation of sunlight to the light of luminous wood, A., 1484.
- Bosler, W. T. See Humphreys & Glasgow, Ltd.
- Bosman, L. P. See Mirvish, I.
- Bosqui, D. See Tainton, U. C.
- Bossa, E., Hall effect for nickel, iron, and copper in weak magnetic fields, A., 844.
- Bossanyi, I. See Kiss, A. von.
- Bosse, J. von, coating of metal articles with metal, (P.), B., 245.
- Bossert Corporation. See Clement, W. J.
- Bosshard, A. See Wessel, K.
- Bosshard, E., and Sturm, H., determination of the detergent power of soaps, B., 1078.
- Bosshard, E., and Wildi, W., bleaching and desulphurisation of mineral oils with silica gel and bleaching earths, B., 849.
- Bossini, R. F., and Maiuri, G., continuous absorption refrigerating apparatus, (P.), B., 591*.
- Bossini, R. F. See also Maiuri, G.
- Bost, P., manufacture of substitutes for catgut, (P.), B., 413.
- Bost, R. W., and Mattox, W. J., carbithioic acids. I. p -Tolyl-carbithioic [dithio- p -toluic] acid and derivatives, A., 340.
- Bost, R. W. See also Borgstrom, P.
- Boswell, M. C., and McLaughlin, R. R., factors influencing the activity of aluminium and ferric chlorides in the Friedel and Crafts reaction, A., 170.
chlorination of methane, A., 190.
- Boswell, V. R., influence of temperature on composition and quality of peas (*Pisum sativum*, L.), A., 1322.
- Bothe, W., decomposition of boron by means of α -particles from polonium, A., 1339.
- Bothe, W., and Becker, Herbert, nuclear γ -radiation of light elements, A., 1086.
polonium γ -radiation, A., 1496.
- Bothy, J., diffusion losses [in beet-sugar manufacture], and the Naudet "plus sugar," B., 879.
- Botolfsen, E. See Pascal, P.
- Botschkarev, P., hormone of the anterior pituitary lobe, A., 902.
- Botschkarev, P., and Grigoriev, N., blood-sugar content of normal rabbits and rabbits used for assay of insulin, A., 254.
- Botson, R., purification of crude sodium sulphide, (P.), B., 58*.
- Botstiber, G. See Lustig, B.
- Bott, H. G., Haworth, W. N., and Hirst, E. L., novel form of isomerism in the sugar series. II. Third variety of tetra-acetylmethylmannoside, A., 1024.
- Bott, H. G., Hirst, E. L., and Smith, J. A. B., derivatives of lyxofuranose, A., 747.
- Bottni, E., substances causing heating in pears, B., 789.
- Bottler, H. See Curtius, T.

- Bottomley, A. C., Lapworth, A., and Walton, A., action of monochlorodimethyl ether on magnesium benzyl chloride, A., 1430.
- Botvinik, M. M. See Gavrilov, N. J.
- Bouchara, E. See Mascré, M.
- Bouchard, J. See Boutaric, A.
- Boucher, E., atomisers for very fluid liquids, (P.), B., 171.
- Boudin, (Mlle.) S., phosphorescence of solutions of eosin in glycerol; influence of iodides, A., 1092.
- coloured crystalline stratifications; study of *p*-toluidine, β -naphthylamine, and diphenylamine, A., 1111.
- Boudin, (Mlle.) S. See also Marcelin, A.
- Bougault, J., and Leboucq, J., preparation of allophanic esters and amides; action of heat, A., 1171.
- Bougault, J., and Popovici, L., reduction of semicarbazones and thiosemicarbazones of α -ketonic acids and of the thiodiketotriazines, A., 742.
- Boughton, W. A., inorganic lubricants. I. Amalgams, A., 1013.
- inorganic lubricants. II. Phosphoric acid mixtures, A., 1154.
- Bouillenne, R., permeability of cells of *Tradescantia virginica* and of *Allium cepa*, A., 1625.
- osmosis in vegetable cells; apparatus for measuring the speed of penetration of salt solutions into vegetable protoplasm, A., 1625.
- Bouisson, (Mlle.) N. See Astruc, A., and Mousseron, M.
- Boulanger, A. C. D., heat-insulating material, (P.), B., 285.
- Boulanger, C., reduction of metallic salts in solution by aluminium, A., 1387.
- Boulard, H., checking of fermentation in the manufacture of sparkling wines, (P.), B., 212.
- Bouma, T. See Ornstein, L. S.
- Bourdellès, L., refining of hydrocarbons, (P.), B., 231.
- Bourdillon, R. B., Gaddum, J. H., and Jenkins, R. G. C., production of histamine from histidine by ultra-violet light and absorption spectra of these, A., 1048.
- Bourdillon, R. B., Jenkins, R. G. C., and Webster, T. A., absorption spectrum of vitamin-D, A., 822.
- Bourdillon, R. B. See also Askew, F. A.
- Bourdouil, C., variation in composition of the banana during ripening, A., 258.
- Bourdouil, C. See also Bridel, M.
- Bourget, P., determination of pilocarpine, B., 882.
- Bourguel, M., *cis-trans*-ethylenic isomerism; addition of two atoms of hydrogen to the acetylenic linking, A., 317.
- Bourguet, M., and Daure, P., chemical constitution and the Raman effect: the acetylenic linking, A., 978.
- Bourguet, M., and Gredy, (Mlle.) V., selective action of a catalyst of hydrogenation, A., 79.
- mechanism of catalytic hydrogenation, A., 171.
- Bourguet, M., and Rambaud, R., dehydration of two stereoisomeric γ -ethylenic glycols in presence of hydrogen ions in water; determination of their spatial configuration, A., 574.
- Bourguet, M., and Truchet, R., action of aromatic sulphonyl chlorides on the sodium derivatives of acetylenic hydrocarbons, A., 592.
- Bourguet, M. See also Lespiau.
- Bourion, F., and Hun, (Mlle.) O., ebullioscopic determination of the molecular equilibria of pyrocatechol in solutions of potassium and sodium chlorides, A., 689.
- ebullioscopic determination of relative affinity in the formation of complex cadmium ammonium iodide, A., 1120.
- Bourion, F., and Rouyer, E., ebullioscopic study of the molecular equilibria of resorcinol in solutions of calcium chloride, A., 155.
- cryoscopic study of paraldehyde in aqueous solution and in solutions of potassium chloride, A., 409.
- ebullioscopic investigations of the molecular equilibria of resorcinol in barium chloride solutions, A., 409.
- Bourke, (Hon.) B. L. See Birtley Iron Co., Ltd.
- Bourke, J. I., colours or stains for graining, etc., (P.), B., 337.
- Bourne, M. C. See Herbert, F. K.
- Bousman, S. I., and Dorr Co., continuous settling apparatus, (P.), B., 353.
- Bousquet, E. W., and Adams, R., substituted phenylethyl-barbituric acids, A., 351.
- Boussand, T. See Courbier, J.
- Bousset, R., and Vaugin, (Mlle.) M., magnesium derivative of pinene hydrochloride [bornyl chloride]; action of ethyl formate, A., 1591.
- Boutaric, A., formulae representing adsorption isotherms, A., 27.
- flocculation of colloidal solutions, A., 1115.
- Boutaric, A., and Bouchard, J., flocculation of ferric hydroxide sols by various electrolytes and the Schultze-Hardy law, A., 1517.
- Boutaric, A., and Perreau, (Mlle.) G., flocculation produced on mixing two colloidal solutions of the same nature, but having oppositely charged particles, A., 692.
- mutual flocculation of sols of ferric hydroxide having granules of opposite signs, A., 993.
- Boutaric, A., and Roy, (Mlle.) M., sedimentation of clay suspensions, A., 289.
- radioactivity of various metals from old roofing, A., 395.
- radioactivity of materials from roofs, A., 976.
- Bouton, G. M. See Schumacher, E. E.
- Boutroux, A. See Grigaut, A.
- Boutwell, P. W., and Kuick, L. F., preparation of glycine, A., 1563.
- Boutwell, P. W. See also Toepfer, E. W.
- Bouwman, J. H. A. See Reith, J. F.
- Bouyoucos, G. J., comparative rate of percolation of water in different soils, B., 1041.
- indirect determination of various soil characteristics by the hydrometer method, B., 1123.
- Bouzat, A., and Chauvenet, E., thermochemistry of the double salts formed by one molecule of cupric chloride with two molecules of the chlorides of potassium, rubidium, or caesium, A., 164.
- heats of solution and of formation of CuCl_2 , A., 1252.
- Bovalini, E., and Banchetti, A., mol. wt., determined by the dynamic method, of substances exhibiting the phenomenon of superfusion, A., 986.
- Bovalini, E. See also Nasini, R.
- Boving, J. O., continuous absorption refrigerating apparatus, (P.), B., 1051.
- Bowater, N. J. See Lymn, A. H.
- Bowden, E., [preparation of] methyl oxalate, A., 743.
- [preparation of] anhydrous oxalic acid, A., 743.
- Bowden, F. P., kinetics of electro-deposition of hydrogen and oxygen, A., 169.
- Bowden, F. P., and O'Connor, E. A., change in the area and catalytic activity of metallic surfaces on passing from the solid to the liquid state, A., 1131.
- Bowden, S. T., constant-temperature preheater, A., 1014.
- double-capillary method of surface tension measurement, A., 1153.
- Bowden, S. T. See also Roberts, D. I., and Thomas, J. C.
- Bowden, W. I., and American Engineering Co., crusher, (P.), B., 691.
- Bowditch, F. T., and National Carbon Co., Inc., solution for chemical rectifiers, (P.), B., 21.
- Bowen, B. J., and Tietz, E. L., oxidation of acetaldehyde by oxygen, A., 67.
- photochemical interaction of acetaldehyde and oxygen, A., 434.
- Bowen, I. S., presence of neutral oxygen in the gaseous nebulae, A., 1328.
- Bowen, J. P. See Gen. Electric Co.
- Bowen, N. L., and Schairer, J. F., fusion relations of acmite, A., 36.
- Bowen, N. L. See also Kracek, F. C., and Morey, G. W.
- Bowen, W. S., device for effecting heat interchange; [immersion heater], (P.), B., 490.
- spray-drying apparatus, (P.), B., 885.
- Bowen Research Corporation. See Harvey, A. H.
- Bowen-Dumars Power Corporation. See Dumars, H.
- Bower, J. See Brit. Celanese, Ltd.
- Bowers, A. D. See Wiley, R. C.
- Bowers, H. E. See Harkins, W. D.
- Bowker, R. C., and Olson, E. S., influence of splitting on the strength and stretch of commercial leathers, B., 874.
- Bowlby, J. L., constant factors for the calculation of the calorific value of Cape Breton coals from proximate analysis data, B., 847.
- Bowling, J. D. See Garner, W. W.
- Bowlus, J. L. See Merrill, H. B.
- Bowmaker, E. J. C., and Cauwood, J. D., selection of coal for gas producers, B., 748.
- Bowman, J. R., and McKinnis, R. B., pentose and uronic acid content of orange albedo, and an arabinogalacturonic acid derived from orange pectin, A., 746.

- Bowman, P. E. See Fry, H. S.
- Box, W. E., recent development of special electro-magnetic separators and applications of interest to the general pottery trade, B., 240.
- Boyce, E. G., Rankine, W. P., and Robertson, A., derivatives of *m*-xylenc, A., 916.
- Boyce, F. F. See Hildebrandt, F. M.
- Boyce, S. R. See Imperial Chem. Industries, Ltd.
- Boyd, J., estimation of dust in mine air, B., 588.
- Boyd, J. H., jun., viscosity of compressed gases, A., 987.
- Boyd, T. C., and Roy, A. C., cholesterol content of blood in filaria, A., 1310.
- Boye, E. See Heymann, E.
- Boyer, S. See Gen. Electric Co.
- Boykin, R. O., refining of oil, refining agent therefor, and its production, (P.), B., 979.
- Boylan, M. See Algar, J.
- Boydland, N., phosphoric esters in alcoholic fermentation. II. Pyrophosphate in yeast preparations, A., 817.
- phosphoric esters in alcoholic fermentation. III. Lag between phosphate esterification and carbon dioxide evolution. IV. Oxidation-reduction potentials of yeast preparations, A., 958.
- Boynton, A. J., and Brassert & Co., H. A., preparation of slimes derived from wet washing of [blast-furnace] gas for sintering, (P.), B., 287.
- gas-washing apparatus, (P.), B., 539.
- Boynton, H. H. See Sherman, H. C.
- Bozorth, R. M., and Dillinger, (Miss) J. F., Barkhausen effect. II. Determination of the average size of the discontinuities in magnetisation, A., 673.
- Bozorth, R. M. See also Foster, D.
- Bozza, G., and Mamoli, L., ethyleno chlorohydrin. I., A., 1269.
- Bozza, G., and Secchi, I., filtration. I., B., 85.
- Bozza, G. See also Cambi, L.
- Braam, G., apparatus for dissolving gases in liquids, especially for the preparation of chlorine water, (P.), B., 270.
- Brabaek, J., removal of vaporisable constituents from liquid, pasty, or solid matters, (P.), B., 491.
- Bracaloni, L. See Cassinis, U.
- Brace, P. H. See Westinghouse Electric & Manuf. Co.
- Bracewell, M. F., Hoyle, E., and Zilva, S. S., antiscorbutic potency of apples, A., 380.
- Brackelsberg, C., production of cast iron containing little gas or oxides, (P.), B., 719.
- melting down easily fusible and easily oxidisable metals and alloys, (P.), B., 914.
- Brackelsberg, C. A., and Maguire, Inc., apparatus for treating [iron] ores, (P.), B., 17.
- Brackett, F. S., and McAlister, E. D., automatic recording of the infra-red at high resolution, A., 568.
- Braeq, E., furnace for roasting sulphide and other ores, (P.), B., 1116*.
- Bradbury, G. M. See Mathers, F. C.
- Bradbury, T. F. See Hall, H. C.
- Bradfield, A. E., and Jones, Brynmor, two apparent cases of liquid crystal formation, A., 87.
- Bradfield, A. E., Jones, Brynmor, and Orton, K. J. P., halogenation of phenolic ethers and anilides. I. Bromination of ethers in 50% acetic acid, A., 208.
- Bradfield, A. E., and Williams, A. F., solubility of certain anilides in water-acetic acid mixtures, A., 27.
- Bradfield, H. S. See Bradfield, R.
- Bradfield, R., and Bradfield, H. S., rôle of the membranes in electrodialysis, A., 30.
- Bradford, B. W., and Finch, G. I., dielectric strengths of explosive mixtures containing carbon monoxide, A., 1105.
- Bradford, S. C., kinetic theory of vaporisation. III. Vapour pressure of solutions, A., 1119.
- dissociation theory of solution, A., 1120.
- Bradley, A. O. See Du Pont de Nemours & Co., E. I.
- Bradley, L., production and utilisation of carbon monoxide [for treatment of iron ores], (P.), B., 426.
- Bradley, L., McKeefe, E. P., and Bradley-McKeefe Corporation, production of bleached chemical wood pulp, (P.), B., 53.
- treatment of residual liquors, etc. [from wood-pulp manufacture], (P.), B., 656.
- manufacture of [wood] pulp and treatment of residual liquors, (P.), B., 1105.
- Bradley, L. A., and Fuller, J. E., nitrogen fixation in field soil under different conditions of cropping and soil treatment, B., 876.
- Bradley, R. C. See Macallum, A. B.
- Bradley, R. S., multimolecular films, A., 1247.
- Bradley, W., and Robinson, R., action of diazomethane on benzoic and succinic anhydrides, A., 771.
- Bradley, W., Robinson, R., and Schwarzenbach, G., synthesis of pyrylium salts of anthocyanidin type. XIX. Synthesis of delphinidin chloride not involving demethylation, and syntheses of hirsutidin chloride and of delphinidin chloride 3'-methyl ether, possibly identical with petunidin chloride, A., 784.
- Bradley-Fitch Co., treatment of ores, (P.), B., 106.
- Bradley-McKeefe Corporation. See Bradley, L.
- Bradner, D. B., and Champion Coated Paper Co., coating of paper, (P.), B., 100.
- Bradshaw, W. H. See Comptoir des Textiles Artificiels Soc. Anon.
- Brady, E. J. See Humphreys & Glasgow, Ltd.
- Brady, F. L., corrosion of steel by breeze and clinker concretes, B., 821.
- injury to plaster due to osmosis, B., 1154.
- Brady, O. L., and Muers, M. M., methylation of the oximes of benzil. II. Monomethyl ethers of the benzildioximes, A., 475.
- co-ordination compounds of oximes, A., 1185.
- Brady, O. L., and Peakin, F. H., isomerism of the oximes. XXXVII. Allyl-*p*-nitrobenzaldoximes, *O*- and *N*-allylhydroxylamines, and sulphime *S*-ethers, A., 474.
- Brady, O. L., and Waller, C., formation of phenoxazines, A., 934.
- Bragard, T., and Macaowalzenmühlen-Ges.m.b.H., grinding mill, (P.), B., 400*.
- Bragg, (Sir) W. H., cellulose space lattice, A., 672.
- Bragg, W. L., optical method for demonstrating the results of X-ray analyses, A., 279.
- crystal structure of phcnacite, Be_2SiO_4 , and willemite, Zn_2SiO_4 , A., 1351.
- Braham, J. E. See Imperial Chem. Industries, Ltd.
- Brahmachari, U. N., and Bhattacharyya, T., quinoline compounds. I., A., 1445.
- Brahmachari, U. N., Bhattacharyya, T., Banerjee, R., and Maity, B. B., chemotherapy of quinoline compounds. I. Action of certain quinoline compounds on *Paramecia*, A., 1316.
- Brahmachari, U. N., and Gupta, J. M. D., new aromatic anti-moniais, A., 1196.
- Braid, F., and Hickmans, E. M., metabolic study of an alkaptone-uric infant, A., 1206.
- Braidech, M. M., ammonia-chlorine process [for water] as a means for taste prevention and effective sterilisation, B., 1048.
- Brailey, A. G. See Thompson, W. O.
- Braithwaite, C. See Sutton, H.
- Braman, W. W. See Beadles, J. R.
- Bramley, A., dielectric constant of bromine vapour, A., 1501.
- Bramley Machinery Corporation. See Bramley-Moore, S.
- Bramley-Moore, S., crushing and grinding machine, (P.), B., 4*.
- Bramley-Moore, S., and Bramley Machinery Corporation, crushing, grinding, and refining machine, (P.), B., 398.
- Brammall, A., differentiation in the Dartmoor granite, A., 1156.
- Bramwell, B., volumetric-displacement apparatus suitable for controlling the supply of gas for chlorinating water or similar purposes, (P.), B., 304*.
- Bramwell, F. H. See Imperial Chem. Industries, Ltd.
- Bramwell, I. L., Holmes, C. W. H., and Birtley Iron Co., Ltd., separation of materials [by air], (P.), B., 645.
- air filters, (P.), B., 888.
- [cleaning of bags in] air filters, (P.), B., 1137.
- Bramwell, I. L. See also Birtley Iron Co., Ltd.
- Brancart, A., treatment of cast glass plates and sheets [to prevent buckling], (P.), B., 948.
- Brancart, Y., manufacture of cast glass plates and sheets, (P.), B., 1153.
- Branch, G. E. K., and Miyamoto, S., dissociation constants and heats of ionisation of simple amino-acids and peptides, A., 542.
- Branch, G. E. K. See also Milhoff, R. C.
- Branchik, K. W., spraying or atomising of liquids, (P.), B., 971.
- Brand, E., Harris, M. M., and Biloon, S., cystinuria; excretion of a complex which decomposes in the urine with liberation of cystine, A., 635.

- Brand, K., and Bausch, W., reduction of organic halogen compounds and compounds of the tetra-arylbutane series. X. Compounds of the tetra-arylbutane series, A., 1285.
- Brand, K., Horn, O., and Bausch, W., reduction of organic halogen compounds and compounds of the tetra-arylbutane series. XI. Electrochemical preparation of $\alpha\alpha\delta\delta$ -tetra-*p*-phenetyl- and $\alpha\alpha\delta\delta$ -tetra-*p*-chlorophenyl- $\delta\delta$ -butinones, A., 1285.
- Brand, T. von, and Holtz, F., course and prognosis of the malady produced by overdoses of vitamin-D solutions, A., 257.
- Brandes, H. See Schmalfuss, H.
- Brando, E. M. See Faingard, M. M.
- Brandsma, W. F., reaction velocities. III., A., 38.
- Brandt, A. E. See Irwin, M. H.
- Brandt, H., manufacture of a wood substitute, (P.), B., 614.
- Brandt, P. M. See Haag, J. R.
- Brandt, R. L., the Edlecanu process for refining petroleum, B., 543.
- Brandwood, J., apparatus for dyeing or analogous treatment in wound form of yarns and threads, (P.), B., 186.
- Brandwood, J., treatment of artificial silk threads and filaments, (P.), B., 280.
- Brandwood, J., treatment of textile yarns and threads in wound form with fluids; treatment with air or gases of textile yarns, (P.), B., 555.
- Branham, S. E., effects of certain chemical compounds on the course of gas production by baker's yeast, A., 375.
- Branham, S. E., Robey, L., and Day, L. A., poison produced by *Bacterium enteritidis* and *B. aertrycke* which is active in mice when given by mouth, A., 115.
- Brantley, L. R., and Beckman, A. O., high-temperature equilibrium of titanium dioxide and carbon with titanium carbide and carbon monoxide, A., 1523.
- Brantley, L. R. See also Hincke, W. B.
- Brasch, A., and Lange, F., artificial γ -radiation; a vacuum discharge tube for 2.4×10^6 volts, A., 1337.
- Brasefield, C. J., electron velocities in a high-frequency discharge in hydrogen, A., 268.
- Brasefield, C. J., conductivity of a high-frequency discharge in hydrogen, A., 837.
- Braserton, C. H., manufacture of lead compounds [oxides], (P.), B., 12.
- Brass, J., apparatus for washing, separating, or concentrating minerals and other granular materials, (P.), B., 889.
- Brass, K., Luther, F., and Schoner, K., action of aluminium chloride on *o*-dihydroxybenzils, A., 1589.
- Brass, K., and Stroebel, R., unsymmetrical *o*-disubstituted benzils and their transformation into the corresponding phenanthraquinones, A., 1589.
- Brass, K., Willig, E., and Hanssen, R., 1-hydroxyphenanthraquinone, A., 1589.
- Brasseries Nantaises, and Pierre, L., pasteurisation of liquids, (P.), B., 170.
- Brassert, H. A., apparatus for washing gas, (P.), B., 1136.
- Brassert & Co., H. A., cleaning of blast-furnace gases, etc., (P.), B., 63.
- gas-washing towers, (P.), B., 590.
- continuous gas dryer, (P.), B., 799.
- Brassert & Co., H. A. See also Boynton, A. J.
- Bratring, K., photographic and cinematographic films, (P.), B., 840.
- Bratton, G. S., and Anheuser-Busch, Inc., manufacture of yeast, (P.), B., 927.
- Brauchli, E. See Häussler, E. P.
- Brauer, K., determination of nicotine in tobacco and tobacco smoke, B., 485.
- Braun, C. A., and American Bitumuls Co., manufacture of stable, aqueous [bituminous] emulsions, (P.), B., 61*.
- Braun, E., new form of isomerism in the sugar group, A., 895, 1411.
- Braun, E. See also Dirscherl, W., and Kuhn, W.
- Braun, G., oxidation of unsaturated compounds. II. Preparation and configuration of the γ -halogeno-derivatives of crotonic acid. III. Oxidation of γ -chlorocrotonic acid; synthesis of *dl*-threonic acid; proof of configuration of the *dl*- $\alpha\beta$ -dihydroxybutyric acids. IV. Oxidation of crotonic acid with hypochlorous and perbenzoic acids. V. Oxidation of conjugated systems; oxidation of pentenoic and hexenoic acids, A., 1271.
- Braun, G. See also Rising, M. M.
- Braun, H., and Mündel, F., physiology of nutrition of the diphtheria bacillus. I., A., 502.
- Braun, H. A., non-volatile constituents of *Mentha piperita*, A., 966.
- Braun, H. J., cadmium oleate; a new impregnating [water-proofing] medium, B., 65.
- preparation of pure monoammonium and monocalcium phosphate from bone phosphoric acid, B., 507.
- Braun, J. See Braun, O.
- Braun, J. von, Bahn, A., and Münch, W., decarboxylated peptides and their derivatives. II., A., 73.
- Braun, J. von, and Friedsam, A., tenacity of organic residues. VII., A., 1572.
- Braun, J. von, and Heymons, A., imide and amide chlorides of non-aromatic acids. V., A., 613.
- Braun, J. von, and Kröper, H., odour and constitution. I., A., 68.
- Braun, J. von, and Lemke, G., 5:6:7:8-tetrahydroquinolines and their derivatives. V. Hydrogenation under pressure of cinchonine, and 5:6:7:8-tetrahydroquinoline, A., 485.
- Braun, J. von, and Manz, G., fluoranthene and its derivatives, A., 1570.
- Braun, J. von, and Schwarz, Kurt, dicyclic endoimines. II. 1:4-endoiminocyclohexane, A., 1190.
- Braun, J. von, and Silbermann, H., imide and amide chlorides of non-aromatic acids. IV., A., 466.
- Braun, J. von, and Weissbach, K., dealkylation of tertiary amines by organic acids, A., 458.
- dealkylation of tertiary amines by organic acids. II. Nicotine, A., 1444.
- Braun, J. von. See also Gen. Aniline Works, Inc.
- Braun, O., and Braun, I., preparation of compressed iodine in the form of rods, pencils, etc., (P.), B., 840.
- Braun, W. See Bleyer, B.
- Braunbek, W., electrical resistance of thin metal layers, A., 140.
- Moseley diagram of the ionisation voltages of the light atoms and ions, A., 1080.
- calculation of the Röntgen *K* terms of the lightest elements and of the rare gases from "optical" ionisation potentials, A., 1229.
- Braune, H., and Engelbrecht, G., Raman effect with solutions of mercuric chloride and bromide, A., 1344.
- Braune, H., and Linke, R., internal friction of gases and vapours. III. Effect of dipole moment on magnitude of Sutherland's constant, A., 987.
- Brauner, B., determination of small quantities of lithium, A., 1146.
- Brauner, L., polar permeability, A., 965.
- Braunsehlid, J., retention of nitrogen in liquid manure, (P.), B., 342.
- Braunstein, S., containers for storing and transporting liquefied gases and applicable for cooling air or other gases, (P.), B., 799.
- Brausil, F. A., treatment of the wood of living trees or of the still-living trunks of felled trees, (P.), B., 192.
- Brautechnik Ges.m.b.H., filter for compressed air, (P.), B., 307.
- Bravo, G. A., fastness of dyestuffs in ultra-violet light. I. and II., B., 453, 896.
- vegetable tanning materials of Lybia, B., 573.
- Bray, M. W. See Curran, C. E.
- Bray, R. H., field test for available phosphorus in soils, B., 295.
- Bray, W. C., oxide of iodine, I_2O_5 ; intermediate compound [in the iodine-hydroxyl and hydriodic-iodic acid reactions], A., 1378.
- Bray, W. C., and Davis, P. R., autocatalytic reduction of bromate [ions] by hydrogen peroxide in acid solution, A., 713.
- Brazdziunas, P., Stark effect in the resonance line of mercury and its behaviour in magnetic fields, A., 1489.
- Brazier, M. A. B., separation of the products of protein hydrolysis, A., 1458.
- Brdička, R., constitution of the aqueous pink and blue cobaltous chloride solutions. I. Electrodeposition at the dropping mercury cathode, A., 1254.
- constitution of aqueous pink and blue cobaltous chloride solutions. II. Spectrometric research, A., 1540.
- Brdička, R., and Pavlik, M., automatic recording of extinction curves of absorption spectra, A., 519.
- Breaker, H. O., [electric] heat-treating furnace, (P.), B., 722.
- Breazeale, J. F., magnesium and calcium in zeolitic soils, B., 1166.
- Breckenridge, M. See Moore, D. L. R.
- Bredden, H., percolation of alcoholic extracts; rational preparation of ergot extract, B., 439.

- Bredemann, G., and Nerling, O., determination of the composition of potato starch from the size of the starch granules, B., 343.
influence of nutrition on the size distribution of potato starch grains, B., 735.
- Bredereck, H., constitution of trehalose, A., 748.
- Bredereck, H. See also Helferich, B.
- Bredig, G., catalytic addition of hydrogen, A., 430.
- Bredig, M. A., dependence of width and intensity of Debye lines and rings on dimensions of X-ray source, etc., A., 1502.
- Bredig, M. A., and Möller, H., crystal structure of picric acid, A., 672.
- Breed, R. S. See Pederson, C. S., and Prickett, P. S.
- Brégeat, J. H., cracking of hydrocarbons, (P.), B., 893.
- Breh, F., and Gaebler, O. H., determination of potassium in blood-serum, A., 944.
- Breheny, T., enriching the flavour and improving the aroma of beer, etc., (P.), B., 481.
- Brehmer, W. von, and Bärner, J., distribution and storage of the most important alkali salts in the potato stalk, A., 822.
- Breinl, F., and Haurowitz, F., examination of the precipitate from haemoglobin and anti-haemoglobin serum and the nature of antibodies, A., 1608.
- Breisig, A., apparatus for vaporising liquids by means of accumulated heat, (P.), B., 3.
water-gas generators, (P.), B., 1101.
- Breisky, J. V. See Associated Electrical Industries, Ltd.
- Breit, G., separation of angles in the two-electron problem, A., 654.
possible effects of nuclear spin on X-ray terms, A., 1079.
fine structure of He as a test of the spin interactions of two electrons, A., 1327.
- Breit, G., and Salant, E. O., frequency shifts in dispersing media, A., 1496.
- Bremond, P., firing of ceramics and faults due to firing, B., 1066.
- Bremppell, W. I. See Britzke, E. V.
- Brems, A., and Holten, C., rise of blood-pressure and some so-called hypoglycaemic symptoms after injection of insulin, A., 1221.
- Brenans, P., and Yeu, K., bromodi-iodophenols; symmetrical trihalogeno-compounds, A., 1034.
- Brenchley, W. E., varying effect of lime on grassland with different schemes of manuring, B., 1083.
- Brendel, C. See Spengler, O.
- Brender à Brandis, G. A. See De Goey, H. J. A.
- Brenck, H., and Rhenania Verein Chemischer Fabriken Akt.-Ges., manufacture of solutions of salts of alkali metal and aluminium, (P.), B., 283*.
- Brennan, E. M., Daniel, A. P., and Bauer Bros. Co., attrition mill, (P.), B., 223.
- Brennan, E. M. See also Markley, J.
- Brennecke. See Merz, A.
- Brenner, O., preparation of transparent paper, (P.), B., 100.
- Brenner, W., *Azotobacter* in Finnish soils, B., 577.
reaction of Finnish soils, B., 577.
influence of various mineral carbonates on soil reaction, B., 577.
lime additions to friable clay, B., 920.
- Brentano, J., precision measurements of X-ray reflexions from crystal powders, A., 670.
- Brenthel, F., effect of recrystallisation on the technical behaviour of lead, B., 286.
- Bresser, A. H., manufacture and stabilisation of nitrocellulose, B., 795.
- Bressler, S., and Kondratév, V., heat of dissociation of the molecule O₂ and Sutherland's constant for oxygen, A., 283.
- Bressman, E. N. See Smith, D. C.
- Brestak, L., and Dafert, O. A., oxidimetric determination of phosphate ion, A., 562.
- Breteau, P., conditions for evaporation of mineral waters from the point of view of chemical analysis, A., 310.
- Brety, J. See Olivier, H. R.
- Brethen, M. R. See Clarke, H. T.
- Bretscher, E., symmetry relations of molecules from the point of view of their electric moment; diphenyl group, A., 399.
- Bretscher, E. See also Rule, H. G.
- Bretschneider, O. See Lottermoser, A.
- Brett, G. F., combination of nitrogen and hydrogen activated by electrons, A., 1532.
- Breuer, H. See Rheinboldt, H.
- Breusing, K., and Gottesmann, U., rapidly producing uniform metal [e.g., copper] deposits electrolytically, (P.), B., 107.
[controlling electrodeposition in] electrolytic processes, (P.), B., 672.
- Brevort, M. J. See Wiebe, R.
- Brewer, A. K., photo-electric and thermionic properties of platinum-coated glass filaments, A., 972.
- Brewer, A. K., and Westhaver, J. W., chemical action in the glow discharge. II. Further investigation on the synthesis of ammonia, A., 304.
chemical action in the glow discharge. IV. Synthesis of ozone, A., 1003.
chemical action in the glow discharge. V. Oxidation of hydrogen, A., 1533.
- Brewer, A. K. See also Westhaver, J. W.
- Brewer, J. E. See Jones, M. C. K.
- Brewin, A., and Turner, E. E., γ -phenyl- α -methylpropyldimethylarsine, β -benzylbutyldimethylarsine, and some related compounds, A., 626.
- Breyer, F. See Suhrmann, R.
- Breyer-Brandwijk, M. G., leaves of *Solanum pseudocapsicum*, A., 1323.
- Brice, A. T., jun., combined peroxidase-Wright's stain for blood films, A., 1055.
- Brice, B. A., band spectrum of silver chloride, A., 838.
- Brick, A. See Rubens, B.
- Bricout, P., absolute micromanometer depending on electrostatic compensation, A., 567.
- Bridel, M., hydrolysis by emulsion of two glucosides considered non-hydrolysable by this method: asebotin and phloridzin, A., 1474.
- Bridel, M., and Bourdoul, C., unclosed, a β -glucoside from fresh leaves and branches of *Arbutus unedo*, L., A., 1484.
- Bridel, M., and Charaux, C., variation of the colour of plants during drying; orobol, a chromogen obtained from *Oberus tuberosus*, L., A., 383.
oroboside, a new glucoside hydrolysed by emulsin, extracted from *Orobis tuberosus*, L., and its products of hydrolysis, dextrose and orobol, A., 456, 895, 1324*.
- Bridel, M., and Ioanid, N., reduction in the activity of the β -glucosidase of almond emulsin during successive syntheses of β -methylglucoside, A., 1474.
- Bridel, M., and Rabaté, J., variations in the composition of fresh branches of *Amelanchier vulgaris*, Moench, A., 121, 383*, 826*.
distribution of piceoside (picein of Tanret) in the vegetable kingdom, A., 258.
piceoside of black willow bark, A., 825, 1324*.
- Bridge, S. W. See Stephenson, J. B.
- Bridgeman, O. C. See Beattie, J. A.
- Bridger, E., method and apparatus for producing a metallic spray, (P.), B., 773.
- Bridges, F. S., gypsum fireproofing blocks, (P.), B., 771.
- Bridges, J., and Electroflo Meters Co., Ltd., [recording] pyrometers adapted to the control of temperature, (P.), B., 591.
- Bridges, R. W. See Churchill, H. V.
- Bridgford, T. E. See Gibbons Bros., Ltd.
- Bridgman, P. W., emission of electrons from conductors under intense fields, A., 268.
elastic moduli of alkali halides, A., 845.
compressibility and pressure coefficient of resistance of several elements and single crystals, A., 848.
- Briegleb, G., dynamic allotropic state of selenium. I. and II., A., 23.
polar properties of the carboxyl group in some aliphatic acids and in benzoic acid (dipole moment, association, solubility, and electrochemical behaviour), A., 1501.
- Briegleb, G. See also Wolf, K. L.
- Briers, F. See Imperial Chem. Industries, Ltd.
- Briggs, A. J., and Industries of America, Inc., rotary kiln, (P.), B., 86.
- Briggs, A. J. See also Newkirk, E. D.
- Briggs, F. A. See MacDonald, M. B.
- Briggs, J. F. See Brit. Celanese, Ltd.
- Briggs, P. S., limits of acidity and temperature in "clearing" semi-tanned sheepskins, B., 732.
- Briggs, T. R., polyiodides of caesium. II. Iodine and caesium iodide, A., 1522.
- Briggs, T. R., and Benedict, W. S., germanium. XXXII. Alloys of germanium; system lead-germanium, A., 284.

- Briggs, T. R., and Geigle, W. F., iodine and potassium iodide, A., 1521.
- Briggs, T. R., Greenwald, J. A., and Leonard, J. W., polyiodides of caesium; system caesium iodide, iodine, and water at 25°, A., 1374.
- Bright, E. M. See Colwell, A. R.
- Brightman, R. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Brightmore, J., fixation of atmospheric nitrogen, (P.), B., 1066*.
- Brigl, P., and Mühlischlegel, H., carbohydrates. IX. Derivatives of the aldehydic form of dextrose, A., 1022.
- Brigl, P., and Pfähler, A., origin of hippuric acid in the urine of herbivorous animals, A., 1206.
- Brigl, P., Schütze, M., and Hartung, K. [with Matschenz, G.], reaction of pyruvic acid with glycerol, A., 193.
- Brigl, P., and Windheuser, C., feeding of sodium chlorate to sheep and goats, B., 75.
- Brill, E., nozzles for spinning artificial silk, (P.), B., 760.
- Brill, E., and Hopf, G., photometric determination of serum-cholesterol, A., 1200.
- Brill, R., intensity measurements of diffuse X-rays reflected from distorted sylvine, A., 670.
- silk fibroin, A., 1204.
- X-ray determination of particle size, B., 616.
- Brillouin, L., electrons in metals, and the rôle of Bragg's conditions of selective reflexion, A., 1082.
- electrons in metals and classification of corresponding de Broglie waves, A., 1234.
- Brinck, J. A. See Berlin, D. W.
- Brindley, G. W., scattering power of the carbon atom in diamond for X-rays, A., 833.
- amplitude of vibration of ions in the crystals sodium chloride and fluoride, lithium fluoride, and potassium chloride, A., 834.
- scattering powers of the atoms in magnesium oxide for X-rays and some related properties, A., 982.
- Brindley, P. See Bodansky, M.
- Briner, E., and Deshusses, J., chemical action of electric discharge. II. Formation and decomposition of cyanogen, A., 1134.
- Briner, E., and Kuhn, H., additive compounds of phenols and ammonia. V. Ammoniation of derivatives of phenol, naphthols, and hydroxyanthraquinones, A., 215.
- Briner, E., and Lugin, J. P., action of nitrogen peroxide on calcium phosphate, A., 436.
- Briner, E., Lugin, J. P., and Monnier, R., action of nitrogen peroxide and of nitric oxide on calcium carbonate and lime, A., 436.
- Briner, E., and Monnier, R., action of sulphur dioxide on calcium carbonate and calcium phosphate, A., 436.
- Briner, E., Mottier, M., and Paillard, H., energy value of the ozonide linking formed during the ozonisation of α -terpineol, A., 1441.
- Briner, E., and Susz, B., chemical action of electric discharge. III. True efficiency of ozone production in the silent discharge and its improvement, A., 1135.
- Briner, E. See also Berthoud, A.
- Brings, T., radiometer forces and out-gassing, A., 517.
- Brinjes & Goodwin, Ltd., Seaman, C. F. N., and Atherton, F., roller and other grinding mills, (P.), B., 845.
- Brinker, F. A., and Ruth, J. P., jun., two-step sulphatising roast [for copper-zinc-lead sulphide ores], (P.), B., 720.
- Brinkmann, F. See Toeniesse, E.
- Brinkworth, J. H., temperature variation of the specific heats of hydrogen and nitrogen, A., 282.
- Brintzinger, H., application of dialysis coefficient in the determination of mol. wt., A., 675.
- Brintzinger, H., and Troesmer, B., measurements by the dialysis method; system electrolyte-water, A., 153.
- Briod, A. E. See Christiansen, W. G.
- Brioux, C., and Jouis, E., correlation between the fineness and carbon solubility of calcareous grindings and their neutralising action on acid soils, B., 254.
- neutralising action of silicates of hydraulic lime on the soil, B., 341.
- Briquet, E., comparison of elutriators for the separation of sands, silts, and slime in easily worked soils, B., 874.
- Briscoe, H. V. A., Peel, J. B., and Young, G. W., mercury compounds of thiophen and selenophen, A., 99.
- Brislee, F. J. See Brit. Insulated Cables, Ltd.
- Brissaud. See Seyewetz, A.
- British Alizarine Co., Ltd., and Beghin, P. P., production of anthraquinone vat dyes, (P.), B., 365.
- British-American Tobacco Co., Ltd. See Crolard, J. F. M.
- British Area Regulators, Ltd., and Lindsay, T., desuperheating of steam, (P.), B., 845.
- British Bemberg, Ltd., clearing cotton fibres out of digesters, (P.), B., 1148.
- British Cast Iron Research Association, Norbury, A. L., and Morgan, E., cast iron, (P.), B., 197.
- British Cast Iron Research Association, Rees, W. J., and Skerl, J. G. A., means for measuring the permeability of sands and other aggregates, (P.), B., 559.
- British Cast Iron Research Association. See also Fletcher, J. E.
- British Celanese, Ltd., stiffening of fabric [containing cellulose derivatives], (P.), B., 53.
- treatment of yarns or threads [containing cellulose derivatives] in textile operations, (P.), B., 53.
- production or treatment of fabrics [cellulose effects on cellulose ester fabrics for cross-dyeing], (P.), B., 54.
- flexible sheet material [glass substitute], (P.), B., 99, 205.
- production of coloured materials containing cellulose esters, (P.), B., 101.
- local coloration of materials containing organic esters of ethers of cellulose, (P.), B., 237.
- printing or stencilling of cellulose derivatives [acetate silk], (P.), B., 237.
- concentration of lower aliphatic acids, (P.), B., 315.
- treatment of textile materials containing carbonisable fibres, and products obtained thereby, (P.), B., 318.
- processes of coating and articles produced thereby, (P.), B., 337.
- synthetic resins and their manufacture, (P.), B., 338, 470.
- manufacture of synthetic resins and products containing the same, (P.), B., 338, 470.
- varnishes, lacquers, and similar coating compositions, (P.), B., 338, 571.
- manufacture of paper, sheets, boards, or laminated products, (P.), B., 369.
- coating [of smooth] surfaces [with lacquers], (P.), B., 431.
- surgical dressings, bandages, etc., (P.), B., 441.
- treatment of textile materials, (P.), B., 370.
- manufacture of (A) waterproof, (B) embossed waterproof, fabrics, (P.), B., 370.
- pressing of textile materials, (P.), B., 370.
- lacquers, coating compositions, etc., (P.), B., 469.
- lacquers, coating compositions, etc., and articles coated therewith, (P.), B., 469.
- treatment [coloration] of fabrics, (P.), B., 506.
- preparation of plastic composition articles and method of preparing the same, (P.), B., 553.
- preparation of cellulose esters and ethers, (P.), B., 610.
- manufacture of coated articles, (P.), B., 571.
- manufacture of organic esters of cellulose, (P.), B., 655.
- uniting [cellulosic] sheets or articles, (P.), B., 656.
- coating compositions and vehicles therefor, (P.), B., 676.
- laminated sheet glass, (P.), B., 714.
- coating compositions, plastic compositions, etc., containing cellulose ethers, (P.), B., 726.
- coloration of fabrics [containing cellulose esters or ethers], (P.), B., 762.
- preparation of coating compositions, (P.), B., 779.
- preparation of solutions or plastic masses, (P.), B., 828.
- manufacture of [artificial silk] fabrics, (P.), B., 858.
- manufacture of organic esters of cellulose and coating compositions containing the same, (P.), B., 858.
- [plastic] compositions containing cellulose derivatives [esters or ethers], (P.), B., 858.
- production of printed [cellulose ester] fabrics, (P.), B., 902.
- compositions comprising cellulose derivatives [plasticisers], (P.), B., 943.
- manufacture of artificial filaments, films, etc., (P.), B., 943, 985.
- cellulosic compositions, (P.), B., 985, 1061.
- production of colour effects on artificial materials containing cellulose esters, (P.), B., 986.
- manufacture of cellulose derivatives, (P.), B., 1022.
- treatment of materials containing cellulose esters, (P.), B., 1023, 1107.
- compositions or materials comprising cellulose derivatives [of reduced inflammability], (P.), B., 1023.

- British Celanese, Ltd., sizing of dyed yarns, (P.), B., 1025.
treatment [to improve the hot-ironing properties] of [cellulose ester and ether] materials, (P.), B., 1025.
resinous substances and compositions containing them, (P.), B., 1039.
coloration of textile materials, (P.), B., 1062, 1063.
treatment of [knitted] fabric, (P.), B., 1105.
[production of effects on] textile materials, (P.), B., 1106.
production of ornamental effects on fabrics, (P.), B., 1106.
manufacture of artificial filaments and other products from organic derivatives of cellulose, (P.), B., 1146.
cellulosic compositions [plasticisers for plastics, coating compositions, films, etc. from cellulose esters or ethers], (P.), B., 1147.
coloration of [cellulose ester and ether] textiles and other materials, (P.), B., 1147.
treatment of cellulose ester materials, (P.), B., 1148.
- British Celanese, Ltd., Bader, W., and Stimson, E. E., treatment of mixtures containing carbon dioxide and hydrogen for reducing or eliminating the hydrogen content, and the formation of carbon monoxide therefrom, (P.), B., 1151.
- British Celanese, Ltd., Bader, W., and Thomas, E. B., production of methanol [methyl alcohol from carbon oxides and hydrogen], (P.), B., 1142.
- British Celanese, Ltd., and Billing, J., concentration of lower aliphatic acids, (P.), B., 233.
- British Celanese, Ltd., Bower, J., and Yorke, W., pumping of artificial silk-spinning solutions, (P.), B., 139.
- British Celanese, Ltd., Briggs, J. F., and Roberts, R. P., dry-spinning of solutions of cellulose derivatives, (P.), B., 413.
- British Celanese, Ltd., and Daly, A. J., compositions and materials comprising cellulose esters or ethers, (P.), B., 53.
- British Celanese, Ltd., Dickie, W. A., and Hale, F. C., pirn tubes, cop tubes, cheese tubes, bobbins, and similar supports for textile threads, yarns, etc., (P.), B., 1025.
- British Celanese, Ltd., Dickie, W. A., and Moncrieff, R. W., manufacture and treatment of textile [crêpe] fabrics, (P.), B., 1148.
- British Celanese, Ltd., Dickie, W. A., and Sowter, P. F. C., manufacture of filaments, threads, films, etc. from cellulose derivatives, (P.), B., 761.
production of artificial materials from organic esters of cellulose, (P.), B., 813.
- British Celanese, Ltd., Dreyfus, H., Dickie, W. A., and Taylor, W. I., production of artificial filaments, yarns, or threads, (P.), B., 98, 456.
- British Celanese, Ltd., Dreyfus, H., Kinsella, E., Bower, J., and Taylor, W. I., production of artificial filaments or threads, (P.), B., 456.
- British Celanese, Ltd., Dreyfus, H., and Roberts, R. P., manufacture of artificial filaments or threads, (P.), B., 368.
- British Celanese, Ltd., Dreyfus, H., and Taylor, W. I., manufacture or [stretching] treatment of [travelling] artificial threads or filaments, (P.), B., 656.
manufacture of threads or filaments of cellulose derivatives, (P.), B., 813.
treatment [delustring] of textile [artificial silk] fabrics and articles, (P.), B., 1148.
- British Celanese, Ltd., Dreyfus, H., Taylor, W. I., and Roberts, R. P., production of filaments, threads, yarns, ribbons, etc., from cellulose esters and ethers, (P.), B., 1023.
- British Celanese, Ltd., and Ellis, G. H., treatment of materials containing cellulose esters, (P.), B., 139.
treatment [waterproofing] of materials containing cellulose esters or ethers, (P.), B., 281.
production of waterproof materials, (P.), B., 321.
coloration of materials containing cellulose derivatives, (P.), B., 370.
coloration of cellulose [ester and ether] derivatives, (P.), B., 370.
fixation of insoluble metal compounds on textile materials [weighting or mordanting of acetate silk, etc.], (P.), B., 815.
manufacture or treatment of (A) materials containing cellulose esters or ethers, (B) textile or other material, (P.), B., 944.
production of discharge effects on textile materials, (P.), B., 1147.
production of discharge effects on materials containing cellulose esters or ether, (P.), B., 1148.
manufacture and treatment of textile or other materials containing cellulose esters or ethers, (P.), B., 1148.
- British Celanese, Ltd., Ellis, G. H., and Miller, W. B., production of pattern effects upon textile fabrics or other materials, (P.), B., 458.
colouring of textile materials [resist effects with oxidation dyes], (P.), B., 458.
colouring of [cellulose ester or ether] textile materials, (P.), B., 1024.
- British Celanese, Ltd., Ellis, G. H., Olpin, H. C., and Kirk, E. W., coloration of cellulose [ester and ether] derivatives, (P.), B., 54.
dyeing or otherwise colouring of cellulose derivatives, (P.), B., 320.
manufacture and use of sulphonated organic condensation products, (P.), B., 361, 362.
manufacture and use of dyes [derived from naphthazarin], (P.), B., 755.
- British Celanese, Ltd., Ewing, H., and Roberts, R. P., apparatus for testing the strength of yarns, threads, etc., (P.), B., 184.
- British Celanese, Ltd., and Felgate, R. S., treatment of textile fabrics, (P.), B., 280.
- British Celanese, Ltd., Green, S. J., and Handley, R., manufacture of acetic acid [from formaldehyde and carbon monoxide], (P.), B., 1058.
manufacture of aliphatic compounds [acids from alcohols, etc., and carbon monoxide], (P.), B., 1058.
- British Celanese, Ltd., and Miller, B. E. M., production [purification] of 2:4:6-tribromoaniline and its acyl derivatives, (P.), B., 1058.
- British Celanese, Ltd., Mosby, D. H., Olpin, H. C., and Ellis, G. H., manufacture of nitrated aromatic amino-compounds, (P.), B., 136.
manufacture of [azo]-dyes [for cellulose ester materials], (P.), B., 137.
coloration of materials comprising cellulose [ester or ether] derivatives, (P.), B., 139.
- British Celanese, Ltd., and Olpin, H. C., manufacture of dyes [for acetate silk] and application thereof, (P.), B., 896.
coloration of materials containing cellulose esters or ethers, (P.), B., 902.
- British Celanese, Ltd., Roberts, R. P., Dean, R. I. R., and Gregory, L. W., production of artificial threads, filaments, ribbons, films, etc., from cellulose derivatives, (P.), B., 1105.
- British Celanese, Ltd., and Taylor, W. I., manufacture of artificial threads or filaments, (P.), B., 98.
production of artificial filaments [by the dry or evaporative method], (P.), B., 138.
spinning of textile materials; production of artificial textile yarns and threads, (P.), B., 236.
production of artificial [silk] filaments, (P.), B., 504.
production of artificial (A) filaments and threads, (B) textile yarns or threads, (P.), B., 553.
production of artificial [silk] ribbons, tapes, straws, etc., (P.), B., 554.
production of artificial filaments or threads by the dry-spinning method, (P.), B., 609.
manufacture of textile packages, (P.), B., 655.
delustring of artificial filaments, yarns, or threads, (P.), B., 763.
manufacture of artificial yarns, threads, or filaments, (P.), B., 900.
treatment of textile filaments, yarns, threads, etc., (P.), B., 944, 1025.
manufacture and treatment [delustring] of materials containing organic derivatives of cellulose, (P.), B., 986.
coloration of [artificial silk] textile filaments, yarns, threads, etc., (P.), B., 1063.
- British Celanese, Ltd., Taylor, W. I., and Roberts, R. P., production of filaments, threads, yarns, ribbons, etc., from cellulose esters and ethers, (P.), B., 1023.
- British Celanese, Ltd., Taylor, W. I., Roberts, R. P., and Gregory, L. W., production or treatment of materials containing cellulose esters or ethers, (P.), B., 1063.
- British Celanese, Ltd., and Welch, S. A., manufacture of artificial filaments, threads, films, etc., (P.), B., 184.
- British Cotton Industry Research Association, Fargher, R. G., Galloway, L. D., and Probert, M. E., mildew-proofing treatment of textile materials, goods, etc., (P.), B., 238.
- British Cotton Industry Research Association, Platt Bros. & Co., Ltd., and Oxley, A. E., method and apparatus for spinning fibrous material, (P.), B., 656.

- British Cyanides Co., Ltd., Rossiter, *E. C.*, and Davis, *W. C.*, manufacture of artificial resins, (P.), B., 572.
- British Dyestuffs Corporation, Ltd., and Baddiley, *J.*, dyeing of regenerated cellulose materials, (P.), B., 554*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, manufacture of secondary disazo-dyes, (P.), B., 550*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Brightman, *R.*, and Chorley, *P.*, dyeing [of regenerated cellulose], (P.), B., 1063*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, and Chapman, *E.*, manufacture of absorbent materials, (P.), B., 1051*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Chorley, *P.*, and Brightman, *R.*, manufacture of (A) azo-, (B—D) secondary disazo-, dyes, (P.), B., 550*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, dyeing of regenerated cellulose materials, (P.), B., 554*.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, primary disazo-dyes, (P.), B., 1061*.
- British Dyestuffs Corporation, Ltd., and Brightman, *R.*, azo-dyes and their application [to wool and viscose silk], (P.), B., 277.
- British Dyestuffs Corporation, Ltd., Cronshaw, *C. J.*, and Naunton, *W. J. S.*, manufacture of metallic xanthates, (P.), B., 189*.
- British Dyestuffs Corporation, Ltd., manufacture of vulcanised rubber and of materials for use therein, (P.), B., 1081*.
- British Dyestuffs Corporation, Ltd., and Hailwood, *A. J.*, manufacture of solubilised vat dye and dyeing therewith, (P.), B., 234.
- British Dyestuffs Corporation, Ltd., solubilisation of a perylenetetracarboxylic di-imide dye and dyes produced thereby, (P.), B., 1061*.
- British Dyestuffs Corporation, Ltd., Hollins, *C.*, and Chapman, *E.*, manufacture of aerated waters, sparkling drinks, etc., (P.), B., 1089*.
- British Dyestuffs Corporation, Ltd., Horsfall, *R. S.*, Lawrie, *L. G.*, and Henderson, *J. A. R.*, dyeing of acetate silk, (P.), B., 657*.
- British Dyestuffs Corporation, Ltd., Lawrie, *L. G.*, Linch, *F. W.*, and Rodd, *E. H.*, dyeing cellulose ester and ether, (P.), B., 944*.
- British Dyestuffs Corporation, Ltd., Linch, *F. W.*, and Rodd, *E. H.*, preparation of triarylmethane dyes, (P.), B., 942*.
- British Dyestuffs Corporation, Ltd., and Mendoza, *M.*, manufacture of intermediate compounds and of azo-dyes therefrom, (P.), B., 755*.
- British Dyestuffs Corporation, Ltd., Mendoza, *M.*, and Saunders, *K. H.*, (A) mordant azo-dyes; (B) [dis]azo-dyes, (P.), B., 757*.
- British Dyestuffs Corporation, Ltd., Payman, *J. B.*, and Piggott, *H. A.*, removal of free chlorine and bromine from fluid mixtures, (P.), B., 819*.
- British Dyestuffs Corporation, Ltd., Rodd, *E. H.*, and Linch, *F. W.*, preparation of triarylmethane dyes, (P.), B., 942*.
- British Dyestuffs Corporation, Ltd., and Saunders, *K. H.*, intermediates derived from aminosulphonates, (P.), B., 755*.
- British Dyestuffs Corporation, Ltd., manufacture of [chromable] azo-dyes, (P.), B., 757*.
- British Dyestuffs Corporation, Ltd., azo-dyes derived from aminosulphonates, (P.), B., 757*.
- British Dyestuffs Corporation, Ltd., Saunders, *K. H.*, and Wignall, *H.*, manufacture of ethylene glycol, (P.), B., 51*.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, and Hailwood, *A. J.*, [manufacture of] 1-hydroxylamino-8-sulphoanthraquinone, (P.), B., 856*.
- British Dyestuffs Corporation, Ltd., manufacture of vat dyes and intermediates derived from pyranthrone, (P.), B., 1020*.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, and Tatum, *W. W.*, anthraquinone dyes and dyeing therewith, (P.), B., 757*.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, Tatum, *W. W.*, and Bunbury, *H. M.*, manufacture of halogenated anthraquinones, (P.), B., 1060*.
- British Dyestuffs Corporation, Ltd., Strafford, *N.*, and Walker, *E. E.*, manufacture of phenolic resins, (P.), B., 1039*.
- British Dyestuffs Corporation, Ltd., and Tatum, *W. W.*, manufacture of anthraquinone intermediates, (P.), B., 1060*.
- British Dyestuffs Corporation, Ltd., and Wyler, *M.*, purification of quinoline and quinaldine, (P.), B., 410*.
- British Enka Artificial Silk Co., Ltd., preventing the evolution of disagreeable-smelling gases in the viscose artificial silk manufacture, (P.), B., 813.
- British Enka Artificial Silk Co., Ltd., and Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek, maintaining the concentration of magnesium sulphate spinning baths for viscose, (P.), B., 414.
- British Glues & Chemicals, Ltd., Akt.-Ges. für Chemische Produkte, and Wachtel, *W.*, separation of solids from liquids, (P.), B., 1097.
- British Insulated Cables, Ltd., and Brislee, *F. J.*, insulation of electric wires and cables, (P.), B., 775.
- British Insulated Cables, Ltd., and Lauder, *J. G.*, extrusion of metal, (P.), B., 19.
- British Metallising Co., Ltd. See Rhodin, *J. G. A.*
- British Portland Cement Manufacturers, Ltd., Panisset, *S. G. S.*, and Hannah, *W. S.*, manufacture of cement, (P.), B., 864.
- British "Rema" Manufacturing Co., Ltd., and Howden, *P.*, device for regulating amount of flow or rate of feed of powdered, granular, or lump material to crushing or pulverising mills, etc., (P.), B., 846.
- British "Rema" Manufacturing Co., Ltd., centrifugal apparatus for dust extraction, (P.), B., 932.
- British "Rema" Manufacturing Co., Ltd., Howden, *P.*, and Kahler, *L.*, apparatus for using air or gases as a conveying medium, (P.), B., 224.
- British Research Association for the Woollen & Worsted Industries, and King, *A. T.*, bleaching and stripping dyes from textile fibres and materials, (P.), B., 901.
- British Research Association for the Woollen & Worsted Industries. See also Backer, *S. G.*
- British Reverberatory Furnaces, Ltd. See Sklenar, *W. F.*
- British Rubber Manufacturers Research Association. See Daynes, *H. A.*
- British Synthetics, Ltd. See Higgins, *B. B.*
- British Talking Pictures, Ltd., and De Forest, *L.*, [preparations of records for] coloured talking-picture photography, (P.), B., 742.
- British Thomson-Houston Co., Ltd., temperature indicators [for oil-immersed electrical apparatus], (P.), B., 1117.
- British Thomson-Houston Co., Ltd., and Acheson, *M. A.*, electrodes [anode] for electric-discharge devices, (P.), B., 381.
- British Thomson-Houston Co., Ltd., and Alexander, *P. P.*, vaporisers, (P.), B., 306.
- British Thomson-Houston Co., Ltd., and Bainbridge, *K. T.*, photo-electric cells, (P.), B., 108.
- British Thomson-Houston Co., Ltd., Brophy, *D. H.*, and Ruggles, *W. A.*, storage of alkali and other readily oxidisable metals, (P.), B., 19.
- British Thomson-Houston Co., Ltd., and Buechner, *G.*, [mica-glass] gas-tight [anode] seals [for mercury-arc rectifiers] and their manufacture, (P.), B., 776.
- British Thomson-Houston Co., Ltd., and Campbell, *P. A.*, [chromium as getter in gas-filled] incandescence electric lamps, (P.), B., 955.
- British Thomson-Houston Co., Ltd., and Cherry, *R. M.*, [mounting of ribbon heating-units in] electric furnaces, (P.), B., 825.
- British Thomson-Houston Co., Ltd., and Compagnie Française pour l'Exploitation des Procédés Thomson-Houston, magnetic insulating materials, (P.), B., 723.
- British Thomson-Houston Co., Ltd., spinning boxes for use in the manufacture of artificial silk, etc., (P.), B., 901.
- British Thomson-Houston Co., Ltd., and Coolidge, *W. D.*, X-ray tubes, (P.), B., 152.
- British Thomson-Houston Co., Ltd., and Dantsizen, *C.*, removing soot from gases, (P.), B., 805.
- British Thomson-Houston Co., Ltd., and Eaton, *J.*, production of an ornamental metallic surface on a resinous moulded composition or fibre, (P.), B., 781.
- British Thomson-Houston Co., Ltd., and Edison, *T. A.*, light-sensitive apparatus, (P.), B., 955.
- British Thomson-Houston Co., Ltd., and Fagan, *J. T.*, methods and apparatus for colouring hollow glass articles, (P.), B., 665.
- British Thomson-Houston Co., Ltd., and Fonda, *G. R.*, [gas-filled] electric incandescence lamps, (P.), B., 381.
- British Thomson-Houston Co., Ltd., and Force, *J.*, [getter for] incandescence electric lamps, (P.), B., 566.
- British Thomson-Houston Co., Ltd., and Found, *C. G.*, electric gaseous-discharge device, (P.), B., 1161.
- British Thomson-Houston Co., Ltd., and Frank, *J. J.*, [laminated] magnetic cores, (P.), B., 955.
- British Thomson-Houston Co., Ltd., and Fuller, *T. S.*, manufacture of vacuum tubes, (P.), B., 381.
- British Thomson-Houston Co., Ltd., and Harrison, *F. W.*, treating [impregnating] electrically-insulating material, (P.), B., 567.
- British Thomson-Houston Co., Ltd., and Herzog, *E.*, [high-temperature] electric furnace, (P.), B., 916.
- British Thomson-Houston Co., Ltd., and Hull, *A. W.*, electron-discharge devices, (P.), B., 996.
- British Thomson-Houston Co., Ltd., Ipsen, *C. L.*, and McFarland, *J. L.*, tunnel furnaces [for annealing, etc.], (P.), B., 196.
- British Thomson-Houston Co., Ltd., [conveyor enamelling] electric furnaces, (P.), B., 1159.
- British Thomson-Houston Co., Ltd., Ipsen, *C. L.*, and Otis, *A. N.*, electric furnaces [with removable heating units], (P.), B., 955.

- British Thomson-Houston Co., Ltd., and Kelley, *F. C.*, hard metal compositions [cobalt-tungsten carbides], (P.), B., 333.
- British Thomson-Houston Co., Ltd., and Kelsey, *C. H.*, centrifugal extractor, (P.), B., 41*.
- British Thomson-Houston Co., Ltd., and Kienle, *R. H.*, ["alkyd"] resinous compositions, (P.), B., 624.
- British Thomson-Houston Co., Ltd., and Koller, *L. R.*, light-sensitive discharge apparatus, (P.), B., 1161.
- British Thomson-Houston Co., Ltd., and Kuback, *W. L.*, testing incandescence lamps, etc., (P.), B., 825.
- British Thomson-Houston Co., Ltd., and McFarland, *J. L.*, protective devices or alarms for metal-melting furnaces, (P.), B., 952.
- British Thomson-Houston Co., Ltd., and Mesick, *H. F.*, photo-electric cells, (P.), B., 1161.
- British Thomson-Houston Co., Ltd., and Millar, *G. A.*, methods and apparatus for working fused silica, (P.), B., 990.
- British Thomson-Houston Co., Ltd., and Newkirk, *B. L.*, cleaning of liquid mercury, (P.), B., 333.
- British Thomson-Houston Co., Ltd., Perrott, *L. F.*, and Fitzpatrick, *J. J.*, thermionic cathodes, (P.), B., 774.
- British Thomson-Houston Co., Ltd., and Potter, *J. E.*, electric-discharge devices [lightning arresters], (P.), B., 429.
- British Thomson-Houston Co., Ltd., and Ruder, *W. E.*, manufacture of magnetic [iron-nickel] alloys, (P.), B., 426.
- working of normally brittle sheet metal, (P.), B., 514.
- British Thomson-Houston Co., Ltd., and Seede, *J. A.*, electro-magnetic separation of complex ores, (P.), B., 152.
- British Thomson-Houston Co., Ltd., and Smith, *A. R.*, [cinder trap for boiler] furnaces, (P.), B., 271.
- British Thomson-Houston Co., Ltd., and Steenstrup, *C.*, refrigerating machines, (P.), B., 171.
- condensers for refrigerating systems, (P.), B., 799.
- refrigerators and refrigerating apparatus, (P.), B., 846.
- British Thomson-Houston Co., Ltd., and Thelen, *J. S.*, anodes for electric-discharge devices, (P.), B., 870.
- British Thomson-Houston Co., Ltd., and Valentine, *I. R.*, manufacture of malleable iron, (P.), B., 1158.
- British Thomson-Houston Co., Ltd., and Victor X-Ray Corporation, [semi-portable] X-ray apparatus, (P.), B., 724.
- British Thomson-Houston Co., Ltd., and Wantz, *J. B.*, electron-discharge tubes, and insulating means therefor, (P.), B., 870.
- British Thomson-Houston Co., Ltd., Warren, *H. W. H.*, Garton, *C. G.*, and Smith, *A. E.*, manufacture of moulded articles, (P.), B., 780.
- British Thomson-Houston Co., Ltd., and Webster, *R. C. B.*, [grinding apparatus for] manufacture of paints, (P.), B., 470.
- British Thomson-Houston Co., Ltd., and Whitney, *W. R.*, removal of soot and other solid particles from smoke and fumes, (P.), B., 845.
- Brittain, *F. H.* See Gen. Electric Co.
- Brittain, *H. A.* See Goodyear Tire & Rubber Co.
- Britton, *E. C.*, and Dow Chemical Co., purification of phenylethyl alcohol, (P.), B., 1059.
- Britton, *E. C.* See also Hale, *W. J.*
- Britton, *G. T.* See McBain, *J. W.*
- Britton, *H. T. S.*, and German, *W. L.*, physico-chemical studies of complex acids. I. Tungstic acid, A., 860.
- physico-chemical studies of complex acids. III. Molybdic acid, A., 1371.
- Britton, *H. T. S.*, and Robinson, *R. A.*, physico-chemical studies of complex acids. II. Vanadic acid, A., 860.
- physico-chemical studies of complex acids. IV. Vanadates of silver, A., 1522.
- Britton, *S. C.*, and Evans, *U. R.*, passivity of metals. VI. Comparison between penetrating powers of anions, A., 1258.
- Britton, *S. W.*, influence of sympathetic nerves on muscle-glycogen, A., 953.
- Britzke, *E. V.*, Bremppel, *W. J.*, and Jakubowitz, *M. E.*, production of sodium fluoride by the dry method, (P.), B., 1150.
- Britzke, *E. V.*, and Dragunov, *S. S.*, conditions of hydration of metaphosphates, A., 1137.
- Britzke, *E. V.*, Dunaev, *A. P.*, and Pokhvalinskaja, *E. P.*, ammonium phosphates, B., 611.
- Britzke, *E. V.*, Krestovnikov, *A. N.*, and Schmanenkov, *I. V.*, substitution of limestone by rock salt in blast-furnace practice, B., 771, 908.
- Britzke, *E. V.*, and Pestov, *N. E.*, thermal production of phosphoric acid and high-percentage phosphates, B., 281.
- Britzke, *E. V.*, Pestov, *N. E.*, and Pokhvalinskaja, *E. P.*, thermal method of obtaining potassium phosphates, B., 611.
- Britzke, *E. V.*, Pestov, *N. E.*, and Postrikov, *N. N.*, utilisation of the gases produced by distillation of phosphorus in the blast furnace, B., 903, 1026.
- Britzke, *E. V.*, Pestov, *N. E.*, and Postrikov, *N. N.* [with Bolotin, *M. N.*], utilisation of the gases produced by distillation of phosphorus in the blast furnace, B., 903.
- Britzke, *E. V.*, and Schmanenkov, *I. V.*, reduction of iron ores with coal in coke ovens, B., 1154.
- Briuchonenko, *S. S.*, and Jankovski, *V. D.*, determination of the activity of stabilisers and of coagulants in blood, A., 1202.
- Briusova, *L. J.* See Nametkin, *S. S.*
- Broadbent, *F. W.*, composition and agricultural value of [sugar] factory mud (press cake), B., 478.
- Broadhead, *C. F.*, preparation of a new road binder, B., 770.
- Broadhead, *C. F.*, and Andrews, *R. S.*, production of pitch and similar material from tar, (P.), B., 1140.
- Broadway, *L. F.* See Jackson, *L. C.*
- Broeh, *E.*, crystal structure of potassium per-rhenate, A., 20.
- Broche, *H.* See Pott, *A.*
- Broek, *A. van den*, isotopy, A., 270.
- Broekbank, *C. J.*, vitrified compositions and abrasive objects manufactured therefrom; grinding wheels and similar abrasive articles, (P.), B., 145.
- refractory crucibles, (P.), B., 145.
- Brockmann, *H.* See Abderhalden, *E.*
- Brocq-Rousseu, Gruzewska, (*Mme.*) *Z.*, and Roussel, *G.*, relation between the hydrolytic power of horse-serum amylase and serum-protein, A., 236.
- Brode, *R. B.*, absorption coefficient for slow electrons in cadmium and zinc vapours, A., 657.
- Brode, *W. R.* See Littman, *J. B.*
- Broderick, *A. E.* See Adkins, *H.*
- Brodersen, *K.* See I. G. Farbenind. A.-G.
- Brodersen, *P. H.*, distribution of intensity in the lines of diffraction spectra, particularly in the iron lines, A., 389.
- accurate determination of c_p/c_e by a modification of the method of Rüchardt and Rinkel, A., 848.
- Brodkorb, *F.* See Glud, *W.*
- Brodski, *A. I.*, mercurous ion, A., 35, 705.
- electrochemical properties of the ion of mercurous oxide, A., 545.
- Brodski, *A. I.*, and Boruchovitsch, *S. M.*, temperature coefficients of the quinhydrone and calomel electrodes, A., 296.
- Brodski, *A. I.*, and Trachtenberg, *F. I.*, quinhydrone electrode, A., 560*.
- Brodski, *A. I.* See also Alferov, *M. I.*
- Brody, *H.*, carbon dioxide dissociation curve of frog heart-muscle, A., 950.
- Brönsted, *J. N.*, the acid-base function, A., 543.
- Brönsted, *J. N.*, and Grove, *C.*, kinetic determination of hydrogen-ion concentrations in aqueous solution, A., 711.
- Bröse, *H. L.*, and Saayman, *E. H.*, measurements of the effective cross-sections of reactive gas molecules by means of slow electrons, A., 1084.
- atomic diameters of hydrogen and the inert gases with respect to electrons of low velocity, A., 1337.
- Brogden, *E. M.*, and Brogden Co., preservative treatment of fresh fruit, (P.), B., 36.
- protective treatment of fruit, etc., (P.), B., 263.
- Brogden Co. See Brogden, *E. M.*
- Broglio, *N.* See Dörrenberg, *O.*
- Bromig, *K.*, and Deutsche Gold- & Silberscheideanstalt vorm. Roessler, production of glutaminic acid [in sugar factories], (P.), B., 582*.
- Bromig, *K.* See also Deuts. Gold- & Silberscheideanstalt vorm. Roessler.
- Bromley, *H. A.*, and Causer, *L. W.*, potentiometric determination of acidity in writing inks, B., 570.
- Broniewski, *W.*, and Strasburger, *J.*, structure of copper-zinc alloys, A., 987.
- Bronitsky, *J.* See Drake, *N. L.*
- Bronn, *J. I.*, manufacture of refractory material, (P.), B., 1153*.
- Bronn, *J. I.*, and Concordia Bergbau Akt.-Ges., manufacture of and apparatus for using fuel rich in methane for internal-combustion engines, (P.), B., 47.
- manufacture of ammonium chloride, (P.), B., 946.
- Bronn, *J. I.*, and Fischer, *G.*, separation of constituents of coke-oven gases, etc., (P.), B., 979*.

- Bronn, J. I. See also Concordia Bergbau Akt.-Ges., and Rombacher Hüttenwerke.
- Brookby, H. E., and United States Gypsum Co., fibrous wall-board, (P.), B., 864.
- Brooke, A. F., manufacture of pectin, (P.), B., 1130.
- Brooke, C. L., [determination of] acidity [in flour] with special reference to the acidity limits imposed by the Greek Government, B., 213.
- Brooke, F. W., and Swindell & Bros., W., electric furnace, (P.), B., 152.
- Brooke, F. W. See also Swindell, E. H.
- Brooks, F. J. C. See Buckley, H.
- Brooks, B. T., American [mineral oil] refinery technology, B., 543.
- Brooks, B. T., and Gray Corporation Processes, production of stable hydrocarbon oils, (P.), B., 702.
- Brooks, C. G., production of heat- and chemical-resisting glass, (P.), B., 714.
- Brooks, D. B., correcting engine tests for humidity, B., 85.
- Brooks, D. D., preparation of detergents and cleansers, (P.), B., 519.
- Brooks, J., *post-mortem* formation of methæmoglobin in red muscle, A., 243.
effect of freezing in a concentrated solution of sodium chloride on the colour of red muscle, A., 1464.
- Brooks, M. M., penetration of methylene-blue into living cells, A., 639.
- Broos, J. See De Beer, J. H.
- Brophy, D. H. See Brit. Thomson-Houston Co., Ltd.
- Broun, D., Kayser, F., and Sfaras, J., determination of small quantities of mercury in organic fluids and tissues, A., 1072.
- Brouty, J. See Orekhov, A.
- Brown, A. See Courtney, A. M.
- Brown, C. See Wilson, J. E.
- Brown, C. A., Esselen, G. J., jun., and Manufacturing Improvement Corporation, treatment [oiling] of wool, (P.), B., 759.
- Brown, C. E. See Theis, E. R.
- Brown, C. L. See Kraus, C. A.
- Brown, D., solubility of alkylethylbarbituric acids and the surface activity of their aqueous solutions in relation to their narcotic effects on fishes, A., 247.
- Brown, D. A., acetylene generators, (P.), B., 232.
- Brown, D. J., and Liebhafsky, H. A., manganous-manganese dioxide and manganous-permanganate electrodes, A., 1124.
- Brown, D. J., and Zimmer, J. C., oxidation potential of the lead dioxide electrode in perchloric acid solution, A., 423.
- Brown, E. B., Frey, C. N., Harkins, H. M., and Standard Brands, Inc., food product, (P.), B., 1045.
- Brown, F. D., Richards, G. B., and Roberts, T. J., water-cooled blowing tuyères for blast furnaces, (P.), B., 954.
- Brown, G. A., and Bennett, Inc., process of making waterproof paper, (P.), B., 859.
- Brown, G. G., volatility of motor fuels, B., 934.
- Brown, G. G., Nickols, C. L., and Bigby, P., motor-fuel volatility. II. Starting volatility, B., 802.
- Brown, G. G., and Skinner, E. M., motor-fuel volatility. I. Equilibrium volatility, B., 544.
- Brown, G. G. See also Clarke, E. A., Miller, J. E., Newman, A. B., Nickols, C. L., Rogers, M. C., and Souders, M., jun.
- Brown, G. M., processes and apparatus for surfacing sheet material with pigments, varnishes, lacquers, etc., (P.), B., 872.
- Brown, G. M., and Wyse, H. T., [flotation method of] surfacing articles with films comprising pigments, varnishes, glazes, enamels, lacquers, etc., (P.), B., 828.
- Brown, H. B., and Shohl, A. T., rickets in rats. XI. Alteration of calcium and phosphorus metabolism of normal and rachitic rats produced by irradiated ergosterol, A., 647.
- Brown, H. B. See also Shohl, A. T.
- Brown, H. M. See Internat. Nickel Co.
- Brown, J. B., and Deck, E. M., occurrence of arachidonic acid in lard, B., 619.
- Brown, J. B., and Morris, S. G., effect of varying amounts of menhaden oil on the composition of the body-fat of the white rat; storage of highly unsaturated fatty acids, A., 1613.
- Brown, J. J., domestic fuel by high-temperature carbonisation, B., 495.
- Brown, J. M. W., continuous circulator for a corrosion test or continuous filter, A., 186.
- Brown, (Miss) J. W., physiology of apples. XI. Relation between mineral constitution of apples and soil, A., 120.
- Brown, L. M., steel alloy, (P.), B., 1159*.
- Brown, M. H., and Reedy, J. H., determination of lithium, A., 1146.
- Brown, N. A., and Quirk, A. J., influence of bacteriophage on *Bacterium tumefaciens*; potential studies of filtrates, A., 115.
- Brown, O. W. See McGlynn, A.
- Brown, P., and Brown Co., electric furnace [for producing carbon disulphide], (P.), B., 245.
- Brown, P. E., and Mendell, F. H., biological effects of certain nitrogen fertilisers, B., 474.
- Brown, P. E. See also Walker, R. H.
- Brown, R. E. See Gilman, H.
- Brown, R. L., and Galloway, A. E., methyl alcohol from hydrogen and carbon monoxide. III. Dimethyl ether, B., 359.
- Brown, R. L. See also McKee, R. H.
- Brown, S. L., structure of lead as related to stained glass, B., 993.
- Brown, T. See Brown (Manchester), Ltd., T.
- Brown, W. G. See Thorvaldson, T.
- Brown Co. See Brown, P., Ives, C. Q., Parker, H., and Richter, G. A.
- Brown Line Process Co. See Hall, O. A.
- Brown (Manchester), Ltd., T., and Brown, T., apparatus for printing on fabrics, (P.), B., 458.
- Browne, A. W. See Audieth, L. F., and Smith, G. B. L.
- Browne, F. A., and Barber Asphalt Co., separator, (P.), B., 125.
- Browne, F. L., effect of priming-coat reduction and special primers on paint service on different woods, B., 1038.
- Browne, V. B., manufacture of ductile iron-chromium-aluminium alloys, (P.), B., 515*.
manufacture of magnetic alloys, (P.), B., 953*.
- Brownell, K. A. See Hartman, F. A.
- Browning, E., and Adams, R., stereochemistry of diphenylbenzenes; preparation of stereoisomeric 2:5-dibromo-3:6-di-m-4-xylylquinols and derivatives. IX., A., 1588.
- Browning, E., Woodrow, H. W., and Adams, R., preparation and bacteriological action towards *B. lepra* of certain olefinic acids. XVII., A., 741.
- Brownlie, D., Plassmann process of low-temperature carbonisation, B., 354.
- Brownlow, R., production of compositions including cellulose derivatives soluble in organic solvents, (P.), B., 184.
- Brownmiller, L. T., and Bogue, R. H., X-ray study of the constitution of Portland cement, B., 1111.
- Brownsey, P., Madders, G., Grimshaw, J. A., and Redfearn, H., improvement of printers' ink, (P.), B., 338.
- Broz, R. K., vanadium in petroleum ash, B., 1099.
- Bruce, H. D. See Hannen, P. T.
- Bruce, H. M. See Askew, F. A.
- Bruce, J. A. See Easterfield, T. H.
- Bruce, J. H., ionisation in nitrogen, A., 833.
corona discharge in hydrogen, A., 1327.
- Bruce, W. F. See Hill, G. A.
- Bruch, E. See Freudenberg, K.
- Bruchhaus, E. See Krauss, F.
- Bruchhausen, F. von, and Bersch, H. W., constitution of chelidone, A., 1600.
- Bruchhausen, F. von, and Scholtze, H., constitution of oxy-acanthine, A., 98.
- Bruckman, F. S., D'Esopo, L. M., and Peters, J. P., plasma-proteins in relation to blood hydration. IV. Malnutrition and the serum-proteins, A., 1611.
- Bruckman, F. S., and Peters, J. P., plasma-proteins in relation to blood hydration. V. Serum-proteins and malnutritional or cachectic oedema, A., 1611.
- Bruckmann & Söhne Akt.-Ges., production of electrolytic deposits of varying thickness, (P.), B., 202.
- Bruckner, W. H., electrolytic production of Turkey-red iron oxide pigment, B., 383.
- Brüche, B., effective cross-section curves for hydrocarbon chains, A., 129.
some new results of atomic physics and atomic chemistry, A., 395.
effective cross-section and molecular structure in the hydrocarbon series: methane, ethane, propane, butane, A., 515.
effective cross-section and molecular structure of the isomerides of the formula C_4H_{10} , A., 836.
- Brück, H. See Schüller, H.
- Brückl, K. See Gossner, B.
- Brücklmayr, G. See Aurig, M.

- Brückner, A. See Menzel, H.
- Brüggemann, W., determination of tungsten, chromium, and vanadium in high-speed tool steels, B., 243.
- Brüll, L. See Bonino, G. B.
- Bruen, C., nomogram deriving basal metabolism from height-weight co-ordinates, A., 367.
- Brüning, G. von. See Curtius, T.
- Brüning, H. See Sieverts, A.
- Brüninghaus, L., electrification and conductivity of liquid hydrocarbons, A., 282.
- Bruère, P., phthalinoscopic apparatus for acidimetry in coloured media, A., 731.
- colorimetric micro-reactions of the glutenogenic proteins and cellulosic gels of wheat grain; A., 1626.
- Brugger, M. de los D. See Beato, J.
- Brugseh, H., insulin in human organs, A., 379.
- Brugsch, H., and Horsters, H., quantity and distribution of insulin in blood, A., 503.
- insulin in urine, A., 504.
- Brugsch, H. See also Horsters, H.
- Bruhat, G., ellipsoidal polarimetry in the study of circular dichroism, A., 668.
- absorption and rotatory dispersion of solutions of tartaric acid, A., 1094.
- Bruhat, G., and Legris, R., absorption of aqueous solutions of tartaric acid and of alkali tartrates, A., 10.
- rotatory dispersion of tartaric acid and alkali tartrates in aqueous solution, A., 18.
- absorption and rotatory dispersion of tartaric acid, A., 399.
- Bruhat, G., and Terrien, J., comparative absorptions of aqueous solutions of active and racemic tartaric acids, A., 1090.
- ultra-violet absorption of tartaric acid solutions: influence of the concentration, A., 1341.
- Bruhl, J., construction of spinning pots or boxes utilised in the manufacture of artificial silk, (P.), B., 760.
- Bruhl, R., occurrence of the female sexual hormone and the hormone of the anterior pituitary gland in the blood and urine of newly-born infants, A., 962.
- Bruhn, B., and Polysius, G., manufacture of fused cement, (P.), B., 193*.
- Bruhns, G., degasification apparatus [for evaporators], B., 931.
- Bruin, P. See Smits, A.
- Brukl, A., heteropoly-acids of germanium. I., A., 1538.
- Brukl, A., and Ortner, G., gallium sulphides, A., 720, 1537.
- Brunner, K., peculiar behaviour of nitrogen on ionisation by X-rays, A., 271.
- Brun, P., b. p. of (ternary) water-alcohol mixtures, A., 285.
- Brunauer, S. See Emmett, P. H.
- Bruene, E. H., composition for and method of treatment of garbage, (P.), B., 122*.
- Brunel, A. See Fosse, R.
- Brunelli, L., Carra, G., and Sofia, F., manufacture of grinding wheels, hones, etc., (P.), B., 1030.
- Brunetti, R., variations of crystal polychroism under the action of the magnetic field, A., 397.
- Brunetti, W., preparation of 4-nitronaphthalene-1-sulphonyl chloride, A., 1569.
- Brunhübner, G., flux for soldering, (P.), B., 333.
- Brunhübner, G., and Bek, E. G., soldering [chain links, metal mesh, etc.], (P.), B., 1116.
- Brunius, E. See Euler, H. von.
- Brunjes, A. S. See Olsen, J. C.
- Brunkow, O. R., petroleum hydrocarbons as diluents in lacquers, B., 384.
- Brunner, A. See Fierz-David, H. E.
- Brunner, M., oxidation of *n*-hexane; reaction in presence of anti-oxidants, A., 549.
- rotatable manometer for high vacua, A., 1549.
- Brunner, M. See also Schläpfer, P., and Staudinger, H.
- Brunner, R., new compounds and reactions in the nitroprusside series, A., 1009.
- Brunnträger, F. See I. G. Farbenind. A.-G.
- Bruno, A., [fire- and damp-proof] bricks, tiles, etc., (P.), B., 190.
- new hypothesis of the mode of action of potash [in plants], B., 630.
- Bruns, B., and Frumkin, A., relation between gas content and adsorption of electrolytes by activated charcoal. III. Platinised charcoal as a hydrogen electrode, A., 684.
- Brus, G., and Peyresblanques, G., fixation of ozone by unsaturated compounds, A., 449.
- Brus, G., and Peyresblanques, G., absorption of ozone by benzenoid and acetylenic systems, A., 588.
- Brus, G., and Věbra, J., transformation of camphene into isobornyl esters and decomposition of bornyl and isobornyl esters to camphene, A., 1294.
- crystalline complexes obtained from bornyl and isobornyl acetates, A., 1591.
- Brunson, H. A. See Goodyear Tire & Rubber Co.
- Brustier, V., ultra-violet absorption spectrum of chelidonino, A., 626.
- Bruton, G. R., compound for use as water softener, (P.), B., 307.
- Brunn, J. H., reflex regulator for laboratory stills, A., 834.
- Brylants, P., Ernould, L., and Dekoker, M., α -methylbutenamides, A., 1276.
- Bruzau, (Mme.), α -trisubstituted aryl ketones, A., 604.
- Bružs, B., measurements of temperature at working electrodes. I, II, and III, A., 185, 296, 546.
- surface energy of solids. I. Surface energy of barium sulphate, A., 669.
- Bružs, B., and Jankauskis, A., surface energy of barium sulphate, A., 1515.
- Bryan, A. B. See Heaps, C. W.
- Bryan, O. C., stimulating effect of external applications of copper and manganese on certain chlorotic plants of the Florida Everglades soils, B., 161.
- Bryant, F. L., and Schwarz, S. L., production of distended fibrous material, (P.), B., 610.
- Bryant, H. L., determination of reducing substances in blood with potassium ferriyanide, A., 1463.
- Brydges, W., Foster, S. C., and Bedford Pulp & Paper Co., Inc., manufacture of wood pulp, (P.), B., 236.
- Brydowna, (Mlle.) W. See Fourneau, E.
- Brysilka, Ltd. See Schubert, F. W.
- Bryson, T. A., and Tolhurst Machine Works, Inc., centrifugal machine, (P.), B., 491.
- Bryte-Nelson Refining Co. See Nelson, O. J.
- Bryukhanova, N. A. See Golovin, P. V.
- Brzozowska, J., structure of the band from 2482.07 to 2476.06 Å. in the mercury spectrum, A., 1228.
- Buadze, S. See Abderhalden, E.
- Bubblestone Co. See Rice, J. A.
- Buc, H. E., and Standard Oil Development Co., varnish, (P.), B., 69.
- Bucaria, B. See Phair, R. A.
- Buchan, J. L. See Francis, A. G.
- Buchanan, A., bearings for the trunnions of drying cylinders, (P.), B., 537.
- Buchanan, D., pendulum orbit of the normal hydrogen molecule (H_2), A., 8.
- second genus orbits for the helium atom, A., 510.
- Buchanan, F. L., pendulum roll mill, (P.), B., 886.
- Buchanan, G. H., and American Cyanamid Co., cyanogen chloride-hydrocyanic acid mixture [as fumigant], (P.), B., 325.
- Buchanan, G. H., and Barsky, G., hydrolysis and polymerisation of cyanamide in alkaline solutions, A., 301.
- Buchanan, I. W. P., spray producers, (P.), B., 1137.
- Buchanan, J. H. See Le Vesconte, A.
- Bucherer, H. T., and Meier, F. W., application of the filtration method in volumetric analysis, especially in the analysis of Portland cement, B., 1153.
- Bucherer, H. T., and Tama, C., formation of diazo-oxy-compounds; mechanism of azo-dye coupling, A., 1280.
- Bucherer, H. T. See also Gen. Aniline Works, Inc.
- Buchheim, K. See Chem. Fabr. von Heyden A.-G.
- Buchheimer, K. See Kuntzel, A.
- Buchholtz, H., and Köster, W., temper-hardening of steel containing copper, B., 909.
- Buchholz, H. See Pfeiffer, P.
- Buchner, G., determination of the so-called refined white montan wax in beeswax compositions, B., 674.
- Buchner, M., production of alkali carbonates and ammonia by saponification of calcium cyanamide, (P.), B., 556.
- production of aluminium sulphate, (P.), B., 1028.
- Buchwald, K. W. See Cori, G. T.
- Buck, J. S., 1:2-dihydropapaverine and modified syntheses of papaverine and papaveraldine (xanthaline), A., 1455.
- synthesis of lodal and epinine, A., 1575.
- Buck, J. S., and Davis, R. M., Pictet and Gams' berberine synthesis, A., 485.
- Buck, J. S., and Ide, W. S., mixed benzoins. I. and II., A., 345, 1586.

- Buck, J. S., and Kumro, D. M., toxicity of lead compounds, A., 498.
- Buck, J. S., and Wrenn, S. N., preparation of aminoacetal, A., 199.
- Buck, J. S. See also Allen, I., *jun.*
- Buckley, H., and Brookes, F. J. C., visual spectrophotometer, A., 1548.
- Buckley, J. P. See Epstein, S.
- Buckley, J. S., Joss, E. C., Creech, G. T., and Couch, J. F., carotenosis of bovine livers associated with parenchymatous degeneration, A., 1058.
- Buckley, T. A. See Georgi, C. D. V.
- Buckley, W. A. See Griffin, E. P.
- Buckner, G. D., Martin, J. Holmes, and Hull, F. E., distribution of blood-calcium in the circulation of laying hens, A., 952.
- Buckwald, K. W. See Mattick, W. L.
- Budagian, F. E., and Pavlov, V. P., influence on butter of impurities in the cooking salt, B., 517.
- Budd Manufacturing Co., E. G., and Smidh, L., urea-formaldehyde condensates, (P.), B., 338.
- Budd Wheel Co., Tarbox, J. P., Hanson, A. F., and Reed, G. B., welding [apparatus], (P.), B., 1077.
- Budelmann, G. See Bornstein, A.
- Budnikov, P. P., velocity of hydration of dehydrated gypsum, A., 428.
- velocity of dehydration of gypsum at different temperatures, A., 428.
- rate of solution of magnesia ignited at various temperatures, A., 1129.
- gypsum, A., 1137.
- comparative effects of glass batch, cullet, soda, and sulphate on fireclay bricks, B., 240.
- dependence of the solubility in water of the soluble substances of clays and ceramics on the temperature of calcination, B., 283.
- manufacture of anhydrite cement, B., 284.
- rapid method for determination of moisture in grog, semi-porcelain pastes, and granulated blast-furnace slag, B., 461.
- Budnikov, P. P., and Khizh, B. A., formation of mullite in refractories, B., 1067.
- Budnikov, P. P., Kukolev, G. V., and Leshoev, V. M., diminution of the water content of sludge in the manufacture of Portland cement by the wet process; influence of diluting substances on the fineness of grinding materials for the manufacture of cement by the wet process, B., 863.
- Budnikov, P. P., and Lecheyev, V. M., use of gypsum waste products, B., 907.
- Budnikov, P. P., and Smelyanski, I. C., change of quartz into tridymite in silicate blocks in the presence of mineralisers and a partial substitution of quartzites by sand in a silicate bed, B., 905.
- Büchner, E. H., and Royen, A. H. H. van, movement of liquid streams and drops in an electric field, A., 29.
- Buechner, G. See Brit. Thomson-Houston Co., Ltd.
- Buehler, C. A., Hisey, A., and Wood, J. H., molecular organic compounds. II. Molecular organic compounds of 2:4-dinitroaniline, 1-chloro- and 1-bromo-2:4-dinitrobenzene, A., 905.
- Bühler Bros., dust filters, (P.), B., 127.
- Büll, H., influence of time of precipitation on determination of calcium in blood-serum, and magnitude of the dialysable and non-dialysable portions, A., 235.
- Buell, M. V., origin of inosinic acid, A., 374.
- Bülow-Hansen, V., behaviour of ketonic substances in blood, urine, and cerebrospinal fluid; diabetic coma, A., 1206.
- Blinz, R., manufacture of plastic masses, (P.), B., 111.
- Bürg, G., obtaining precious metals [gold and silver] from ores, (P.), B., 199.
- Bürger, M., and Winterseel, W., excretion of sterol and sterol balance in total closure of the biliary duct, A., 805.
- Bürki, A. F., and Pfrunder, V. R., influence of the sensitisation of photographic plates on their spectral sensitivity and gradation, B., 486.
- Bürstebinder, R., various causes of turbidity in soap solutions, B., 996.
- tar-forming value and oxidisability of hydrocarbon oils and fats, B., 1099.
- Büsching, W., concentration of sulphuric acid, (P.), B., 142.
- denitration of waste [sulphuric] acid mixtures, (P.), B., 588*.
- Buess, W., melting furnace for readily fusible metals [e.g., zinc], (P.), B., 288.
- Büsem, W., Gross, F., and Herrmann, K., structure of thin bismuth plates, A., 1354.
- Büttner, G., and Miermeister, A., evaluation of preserved crab products and detection of crab constituents, B., 35.
- investigation and evaluation of wine distillates and wine brandies, B., 527, 963.
- Buettner, K. E., combined purifying and distilling apparatus, (P.), B., 492.
- Büttner-Werke Akt.-Ges., drying drum with attachment for cooling the material before discharge, (P.), B., 268.
- drying drums, (P.), B., 969.
- Bufano, M., influence of the vegetative system on the deaminating function of the liver, A., 244.
- Buffalo Electro-Chemical Co., Inc. See Pietzsch, A.
- Buffalo Forge Co. See Cricui, A. A.
- Buffalo Foundry & Machine Co., Inc. See Marle, D. J., *van.*
- Bugbird, H. C., and Warren Co., S. D., treatment of moulds, (P.), B., 17.
- Bugnard, L., regulation of blood-cholesterol and the lungs, A., 630.
- hypercholesterolemia and excretion of cholesterol after splenectomy, A., 808.
- serum-cholesterol, A., 1462.
- Buhtz, E., irradiation of substances, (P.), B., 673.
- Buisson, H., Jausseran, G., and Rouard, P., transparency of the lower atmosphere, A., 731.
- Buist, D. M. See Humphrey, H. A.
- Buley, A. M., and Blumenberg, H., *jun.*, manufacture of aluminium chloride, (P.), B., 905.
- Bulif, J., [refractometric determination of formic acid in the presence of acetic acid], A., 192.
- Bulkeley, C. A., fundamental principles in air conditioning, B., 123.
- Bulkley, R., and Bitner, F. G., new consistometer and its application to greases and to oils at low temperatures, B., 674, 844*.
- Bull, A. W., and Dorr Co., defecation of sugar juice, (P.), B., 879.
- manufacture of sugar, (P.), B., 1085.
- Bull, H., combined determination of water and fat in organic material, B., 291.
- Bull, H. B., electrostatics of flotation, B., 1158.
- Bullard, R. H., and Haussmann, A. C., vapour pressure of some stannanes, A., 678.
- Bullard, R. H. See also Kraus, C. A.
- Bulle, G., heating of open-hearth furnaces and casting ladles, B., 328.
- Bulle, G., Bansen, H., and Eichenberg, G., investigation of the blast-furnace process by analysis of samples of the charge, B., 193.
- Bulle, G. See also Wagner, A.
- Bullis, D. E. See Hartman, Henry.
- Bullock, F. J., and Papee Machine Co., pulverising mill, (P.), B., 692.
- Bumann, I. See Freudenberg, K.
- Bumke G.m.b.H., H. A., manufacture of dollies for dry batteries, (P.), B., 870.
- Bumke G.m.b.H., H. A., and Autom Spezial-Maschinen G.m.b.H., production of carbon dollies for galvanic cells, (P.), B., 870.
- Bunbury, H. M. See Brit. Dyestuffs Corp., Ltd.
- Bundel, A. A. See Popov, M. M.
- Bunet, P. E., present position of the industrial electrolysis of alkali chlorides, B., 64.
- Bunet, P. E., and Acières de Gennevilliers, [magnetic-core] induction furnace, (P.), B., 247*, 723*.
- induction furnaces, (P.), B., 672.
- Bunge, F. C., and Macura, H., purification and utilisation of waste liquors, (P.), B., 450.
- Bunn, C. W. See Imperial Chem. Industries, Ltd.
- Bunnel, W. W. See Krause, A. C.
- Bunte, K., and Giessen, A., influence of the reactivity of coke on water-gas formation, B., 446.
- Bunte, K., and Litterscheidt, W., velocity of ignition of gaseous mixtures, B., 1053.
- Bunting, E. N., phase equilibria in the system $\text{SiO}_2\text{-ZnO}$, B., 240.
- Buraway, A. See Hantzsch, A.
- Burban, E. J., manures or fertilisers, (P.), B., 162.
- Burch, C. R., Bancroft, F. E., and Associated Electrical Industries, Ltd., electric glow-discharge tubes, (P.), B., 955.
- gas-tight unions or joints, (P.), B., 1098.
- Burch, O. G. See Stout, L. E.
- Burch, W. J. N., aminohydroxy-acids, A., 460.

- Burchartz, relation between mortar strength and concrete strength, B., 60.
relation of the strengths of cements of various binding powers, B., 949.
- Burda, I. I., determination of the coumarone resin content of the solvent naphtha fraction, B., 649.
production of coumarone resins, B., 676.
- Burdine, T. See Plyler, E. K.
- Bureš, E., application of the differential ebullioscope to the study of the volatility of dissolved substances, A., 31, 409.
- Bureš, E., and Bergauer, J., cyclamin and cyclamyretin, A., 93.
- Bureš, E., and Rubeš, T., 3:5:6-trichloro-*p*-xylydine and some derivatives, A., 204*.
- Burge, W. E. See Green, F. C., and Verda, D. J.
- Burgeni, A., Halla, F., and Kralky, O., structure of *d*-tyrosine hydrochloride, methyl methanetetra-carboxylate, and toluene-*o*-sulphonamide, A., 844.
- Burger, A. See Mosettig, E.
- Burger, A. M., essential oils, B., 486.
- Burger, D., spectrum of helium, A., 263.
- Burger, G. See Mayr, C.
- Burger, H. C. See Ornstein, L. S.
- Burger, J., potato amylase, A., 249.
- Burger, P. See Fechter, A.
- Burger, W., glycolysis of red blood-corpuscles, A., 944.
- Burgers, W. G., difference in space-lattice disturbance and texture between surface and nuclear zones of drawn single- and multi-crystal tungsten wire, A., 20.
occurrence of oriented recrystallisation in aluminium, A., 400.
- Burgers, W. G., and Liempt, J. A. M. van, behaviour of thorium oxide in tungsten filaments, A., 1538.
- Burgess, A. H., hop-drying investigations, their aims, and results already attained, B., 300.
hop-drying in the Saaz and Hallertau districts, B., 389.
appliances for spraying liquids [for agricultural purposes], (P.), B., 634.
- Burgess, L. L., and Krishnamurti, K., scattering of light in aqueous sodium silicate solutions, A., 1500.
- Burgess, P. S., methods for studying replaceable bases in calcareous soils, B., 341.
"build-up and break-down" of soil zeolites as influenced by reaction, B., 783.
- Burgess, R., microbiology of wool; enhancement of "mildew" by soaps and vegetable oils, B., 96.
liability of dyed wool to mildew with special reference to the resistance resulting from chroming, B., 1062.
- Burgess, R., and Rimington, C., microscopical examination of wool fibres, A., 363.
- Burgess, S. G., and Hunter, H., dependence of rotatory power on chemical constitution. XXXIV. Borotartaric acid, A., 155.
- Burgess, W. M., and Smoker, E. H., products obtained by reducing action of metals on salts in liquid ammonia solution. III. Action of sodium on silver iodide and silver chloride, A., 1386.
- Burgess Battery Co., and Henderson, J. M., dip for dry-cell cores, (P.), B., 824.
- Burgess Battery Co., and Schulte, W. B., [multi-cellular, high-voltage, dry] electric batteries, (P.), B., 776.
- Burgess Battery Co. See also Staley, W. D.
- Burgess Laboratories, Inc., C. F., and Shoemaker, M. J., [manufacture of] cloth-like fabric, (P.), B., 708.
- Burgess Laboratories, Inc., C. F. See also Storey, O. W.
- Burgess, Edward, & Co., Ltd. See Scholefield, F.
- Burghelm, F., relation between cancer and lipid metabolism, A., 106.
- Burquieres, D. P. J., ripening of sugar cane, (P.), B., 1083.
- Burhorn, E., cooling and condensing tower, (P.), B., 2.
- Burk, D., influence of gaseous nitrogen on the organic catalysis of nitrogen fixation by *Azotobacter*, A., 1068.
influence of gaseous oxygen on the organic catalysis of nitrogen fixation by *Azotobacter*, A., 1068.
- Burk, D., and Lineweaver, H., influence of fixed nitrogen on *Azotobacter*, A., 1219.
- Burk, N. F., and Greenberg, D. M., physical chemistry of proteins in non-aqueous and mixed solvents. I. State of aggregation of certain proteins in aqueous carbamide solutions, A., 1118.
- Burke, C. E. See Du Pont de Nemours & Co., E. I.
- Burke, G. W., Levine, M., and Nelson, G. H., determination of nitrates [in water], B., 688.
- Burke, J. J., manufacture of artificial stone, marble, etc., (P.), B., 1112.
- Burke, S. P. See McKee, R. H.
- Burkhardt, G. N., action of fuming sulphuric acid on hexane, cyclohexane, and some of their derivatives, A., 1552.
- Burkhardt, H. See Berl, E.
- Burkser, E. S., physico-chemical study of the water and mud of salt lakes of the Ukraine and of the Kuban district, A., 1015.
- Burkser, E. S., Milgevskaja, W. L., and Feldmann, R. W., gravimetric determination of small amounts of rubidium, A., 881.
- Burkser, E. S., Rublov, S. G., and Scharnovsky, A. M., triple compounds of gold bromide and rubidium [bromide] with bromides of other metals, A., 175.
- Burlin, A. L., treatment of waste spun or woven textile material, (P.), B., 138.
- Burmah Oil Co., Ltd. See Allan, H. L.
- Burman, M. M., preparing oil, fat, lard, tallow, etc. for storage or transit, (P.), B., 871.
- Burmman, J., determination of nicotine in oriental tobaccos, B., 1130.
- Burmeister, W. See Pringsheim, H.
- Burn, J. H., evaluation of digitalis by pigeon-emesis and other methods, A., 1063.
- Burn, J. H., and Elphick, G. K., toxicity of different samples of mercurochrome 220, B., 881.
- Burne, C. A., briquetting of fuel, (P.), B., 649.
- Burnet, E., manufacture of [curved sheets of] safety glass, (P.), B., 241.
- Burnet, F. M., production of staphylococcal toxin, A., 960.
physical difference amongst bacteriophages, A., 1219.
- Burnett, L. C. See Reddy, C. S.
- Burnett, W. B. See Goldblatt, L. A.
- Burns, J. A. See Hopkins, R. H.
- Burns, K. See Reilly, J.
- Burns, Kevin, spectroscopic notes, A., 832.
- Burns, Kevin, and Walters, F. M., jun., wave-lengths and atomic levels in the spectrum of the vacuum iron arc, A., 2.
- Burns, L. See Stockbarger, D. C.
- Burns, R. M., and Clarke, B. L., determination of the volatile wood acids corrosive to lead cable sheath, B., 379.
- Burns, R. M., and Salley, D. J., particle size as a factor in the corrosion of lead by soils, B., 422.
- Burow. See Zielstorff.
- Burr, G. O., and Burr, M. M., fatty acids essential in nutrition, A., 810.
- Burr, M. M. See Burr, G. O.
- Burrage, L. J., determination of sorption isothermals of vapours on charcoal, A., 1513.
- Burstall, F. H., and Sugden, S., parachor and chemical constitution. XIV. Tellurium compounds, A., 399.
- Burstall, F. H. See also Morgan, G. T.
- Burstein, A. I., distribution of zinc in the blood of man and the higher animals, A., 361.
- Burstein, R., Frumkin, A., and Lavrovskaja, D., relation between the gas content and the adsorption of electrolytes by activated charcoal. IV. Adsorption of acids by degassed charcoal and by charcoal saturated with hydrogen, A., 1513.
- Burstein, H., determination of the tar number in transformer oils, B., 176.
determination of the softening points of asphalts and pitches by the Kraemer-Sarnow method, B., 1010.
- Burt, C. P., and Howland, F., cyclic acetals. I. Formation of cyclic acetals from Δ^8 -octadiene-8 ϵ -diol, A., 319.
- Burt, F. A., capsular silica, A., 187.
- Burt, M. L. See Page, I. H.
- Burton, A. C. See McLennan, J. C.
- Burton, D., and Enna, F. G. A., chemistry of the sulphation of oils, B., 1163.
- Burton, D., and Robertshaw, G. F., functions of oils and fats in currying, fat-liquoring, oiling-off, and chamoising [of leather]. III, B., 628.
- Burton, H., mobile anion tautomerism. IV. Stability of α - and γ -alkylallyl alcohols and their esters; 2:4-dimethylcinnamyl alcohol, A., 450.
mobile anion tautomerism. V. γ -Phenyl- α -*p*-dimethylamino-phenylallyl alcohol, A., 1430.
reducing action of a Grignard reagent, A., 1580.
- Burton, H., and Ingold, C. K., modes of addition to conjugated unsaturated systems. II. Reduction of conjugated unsaturated acids by metals dissolving in aqueous media, A., 64.

- Burton, H. B., influence of cereals on retention of calcium and phosphorus in children and adults, A., 369.
- Burton Foundry Co., Ltd., and Campbell, D. F., gas burners, (P.), B., 979.
- Burwell, A. W., and Alox Chemical Corporation, emulsions from partially oxidised petroleum wax and their manufacture, (P.), B., 753*.
- manufacture of (A) shellac-like product and (B) artificial shellac, (P.), B., 828*.
- Bury, C. R. See Davis, D. G., Grindley, J., and Jones, F. E.
- Busch, F. See Jander, G.
- Busch, M., [with Wagner, E., and Renner, W.], condensation of aldehydes and ketones with thiosemicarbazides, A., 623.
- Busch, M., and Kämmerer, R., isomerism of oximes, A., 603.
- Busch, M., and Schmidt, R., mechanism of the formation of formazyl compounds. II., A., 1428.
- Buschmann, A., fat in the fodder of milch cows, B., 964.
- Bushill, J. H. See Lampitt, L. H.
- Bushnell, T. M., Purdue technique for taking and mounting monolithic soil profile samples, B., 629.
- Busse, S. A., and Gurevitch, H. L., action of semicarbazide on pulegone, A., 1441.
- Busse, W., dependence of the width and intensity of Debye lines and rings on the dimensions of the X-ray source, of the preparation, and of the camera, A., 1240.
- Busse, W. F., and Doggett, W. B., application of the falling cylinder to the measurement of the viscosity of thick rubber cements, B., 918.
- Buswell, A. M. See Boruff, C. S., and Neave, S. L.
- Butcher, C. H., drying plant, B., 123.
- chemical engineering memoranda. XI. Coils for steam-heated stills, B., 643.
- chemical engineering memoranda. XII. Exchange of heat: heaters and coolers, B., 1095.
- Butcher, W. T., Carrott, W., and Locke, Lancaster & W. W. & R. Johnson & Sons, Ltd., lead[antimony] alloy tanks, (P.), B., 773.
- manufacture of (A) lead alloy products and (B) lead yarn, (P.), B., 916.
- Butenandt, A., "progynon," a crystalline female sexual hormone, A., 118.
- pregnandiol, a sterol derivative from the urine of pregnancy, A., 633.
- female sexual hormone. IV. Preparation of pure follicular hormone from urine of pregnancy. V. Physical and chemical properties of crystalline follicular hormone, A., 1480.
- Butenandt, A., and Hildebrandt, F., vegetable, fish, and insect poisons. II. Rotenone, the physiologically active constituent of *Derris elliptica*. II., A., 477.
- Butenandt, A., and Ziegner, E. von, female sexual hormone. III. Physiological activity of crystalline female sexual hormone in the Allen-Doisy test, A., 646.
- Butenschön, H. See Baumgärtel, T.
- Butkevitch, V. S., and Federov, M. V., proportion of acetic, succinic, fumaric, and oxalic acids in cultures of *Mucor stolonifer* and some other moulds, A., 643.
- transformation of ethyl alcohol in cultures of *Mucor stolonifer*, A., 643.
- Butkevitch, V. V., mechanism of assimilation of nutrients by plants, B., 257.
- Butkov, K., photo-effect of ions in solution, A., 836.
- Butler, D. B., cement past and present, B., 327.
- Butler, E. W., and Mann, J. C., mixing of liquids, (P.), B., 538.
- Butler, H. P., [nitrocellulose-]liquefied rubber composition and its manufacture, (P.), B., 1081.
- Butler, J. A. V., and Kermack, W. O., action of salts of polynuclear bases on colloidal suspensions and on the electrocapillary curve, A., 541.
- Butler, J. A. V., and Ockrent, C., adsorption from solutions containing two solutes, A., 851.
- electrocapillarity. I. Electrocapillarity curves of organic acids and their salts. II. Selective adsorption in solutions containing two active substances, A., 1514.
- Butler, J. A. V., and Robertson, C. M., electrolytes in mixed solvents. I. Free energies and heat contents of hydrogen chloride in water-ethyl alcohol solutions, A., 35.
- Butler, K. H., and Maass, O., [preparation and properties of] hydrogen disulphide, A., 1008.
- Butler, L. W. See Satwalekar, S. D.
- Butler, O., and Jenkins, R. R., effect on plants of cyanide fumigation following spraying with Bordeaux mixture, B., 785.
- Butler, P. J. R., influence of temperature on "rapid" coagulation of gold hydrosol, A., 414.
- Butler, W., and Tabor, E. N., aeration of sewage and other liquids, (P.), B., 220.
- Butowski, W., adsorbed bases and unsaturation of Polish sandy soils, B., 920.
- Butte, H. See Windaus, A.
- Butterworth, A. J., and Partington, J. R., catalytic reduction of nitric oxide, A., 429.
- Butterworth, E., and Derrett-Smith, D. A., modification of Ostwald's electric thermo-regulator, A., 1153.
- Butterworth, W. N., and Kates, P., influence of alumina and silica on the $(K_2O-Na_2O)-Al_2O_3-SiO_2$ eutectic, A., 162.
- Buttery, G. G., use of a portable calorimeter in the retort house, B., 128.
- Buttler, H. See Eoff, J. R., jun.
- Buxton, R. H. See Croft, C. M.
- Buxtorf, F. See Rupe, H.
- Buylla, B. A., Asturian coal. I. Low-temperature distillation of cannel coal from Mieres, B., 540.
- Asturian coal. III. Enrichment of a gas oil, B., 972.
- Buysse, C. E., and Industrial Heating Equipment Co., apparatus for heat-treating articles, (P.), B., 490.
- Buzágh, A. von, adherence of microscopic particles to walls of the same nature. I., II., and III., A., 685, 686, 1110.
- measurement of the forces operating during coagulation, A., 1249.
- Byer, W. J. See Englis, D. T.
- Byers Co., A. M., and Beale, A. H., manufacture of wrought iron, (P.), B., 1158.
- Byers Co., A. M., Beale, A. H., and Aston, J., manufacture of wrought iron, (P.), B., 1158.
- Byrnes, C. P. See James, J. H.
- Byrns, G. N. See Herty, C. H., jun.
- Byron, C. S. See Wishnoisky, M.
- Bytchihine, A. A., fixation and mobilisation of phosphoric acid in different layers of chernozem, B., 580.

C.

- Cabanac, M., catalytic decomposition of formaldehyde acetals by metallic oxides, A., 746.
- Cabanes, E. See Canals, E.
- Cabannes, J., degradation of light frequencies by molecular scattering, A., 15.
- polarisation of Raman radiations in liquids and crystals, A., 15.
- Cabell, P. M., [self-regulating] apparatus for supplying steam or other vapours, (P.), B., 267.
- Cabrera, B., value of the Weiss magneton deduced from paramagnetic bodies, A., 982.
- Cabrera, B., Johnner, W., and Piccard, A., thermal variation of coefficient of magnetisation of water, A., 1506.
- Cabrera, C. T., and Electro Dialyzer Corporation, separation process and apparatus; filtering medium, (P.), B., 538.
- [sedimentation and] filtration apparatus [for solid-laden liquids], (P.), B., 887.
- Cabrera, J. See Palacios, J.
- Cadden, J. F. See Stauder, H. T.
- Cadgène, E. See Rivat, G.
- Cadenbach, G. See Fredenhagen, K.
- Cadman, H., and Cadman, N., cement compositions, (P.), B., 665.
- Cadman, N. See Cadman, H.
- Cadwell, S. M., correlation of various ageing tests with natural shelf ageing [for rubber], B., 70.
- Cadwell, S. M., and Naugatuck Chemical Co., substituted dithiocarbamates and their manufacture, (P.), B., 135.
- Cady, G. H., and Hildebrand, J. H., vapour pressure and critical temperature of fluorine, A., 1508.
- f. p. of the system water-hydrogen fluoride, A., 1521.
- Cady, H. P., Kemmerer, G., and Weeks, (Miss) M. E., rôle of hydrogen-ion concentration in the precipitation of calcium and magnesium carbonates, A., 35.
- Cady, H. P., and Taft, R., experiment illustrating voltaic polarisation, A., 886.
- Cady, O. H., and Luck, J. M., vitamin-A, A., 822.

- Cafferata, *B. J.* See Cafferata & Co., Ltd.
 Cafferata & Co., Ltd., and Cafferata, *B. J.*, manufacture of [artificially weathered] bricks, (P.), B., 61.
 manufacture of bricks, etc., (P.), B., 241.
 Cage, *J. M.*, and Dehydrators, Inc., dehydration of oil and water emulsions, (P.), B., 853.
 Cagnasso, *A.* See Cambi, *L.*
 Cahane, *M.*, magnesium and calcium in the liver of hyperthyroidised animals, A., 808.
 Cahane, *M.* See also Parhon, *C. I.*
 Cahill, *G.*, heat-interchange apparatus, (P.), B., 690.
 Cahn, *R. S.*, further degradative experiments in the morphine group, A., 795.
Cannabis indica resin. I. Constitution of nitrocannabinolactone (oxycannabin), A., 913.
 Cakir, *J.* See Stoklasa, *J.*
 Calábek, *J.*, and Morávek, *V.*, swelling of the gel composed of cholesterol, lecithin, and gelatin, A., 416.
 Calatroni, *R.*, and Tschopp, *E.*, determination of chlorine ion in organic liquids, A., 50*.
 Calcagni, *G.*, action of sulphur dioxide on natural phosphates, B., 458.
 nitrophosphates, B., 764.
 Calco Chemical Co., and Laury, *N. A.*, manufacture of sulphur trioxide, (P.), B., 1151.
 Calco Chemical Co., Inc. See also Sleeper, *R. R.*
 Calder, *W. A. S.*, and Palmer, *W. H.*, gas scrubber, (P.), B., 408*.
 Caldwell, *M. L.* See Sherman, *H. C.*
 Caley, *E. R.*, picric acid test for potassium, A., 562.
 filtration pipette for spot indicator tests, A., 567.
 volumetric determination of sodium, A., 726.
 device for rapid determination of the density of small amounts of solids, A., 885.
 detection and determination of small quantities of lithium, A., 1146.
 Caley, *E. R.*, and Foulk, *C. W.*, determination of sodium [in water], B., 884.
 Calico Printers' Association, Ltd., and Webster, *J. D.*, decorative treatment of textile fabrics, (P.), B., 554.
 California Cyanide Co., Inc. See Dolley, *P. T.*
 California Petroleum Corporation. See Cox, *E. R.*
 Calingaert, *G.* See Edgar, *G.*
 Callaghan, *E. B.* See Morris, *S.*
 Callan, *T.*, and Henderson, *J. A. R.*, colorimetric determination of minute amounts of copper, A., 53.
 Callan, *T.*, and Jones, *R. T. P.*, mercury cathode cell for the determination of minute quantities of arsenic, A., 447.
 Callendar, *H. L.*, critical relations between water and steam, B., 689.
 Callison, *W. E.*, Lander, *J.*, and Underhill, *F. P.*, potassium and calcium content of the brain under magnesium sulphate anaesthesia, A., 813.
 Callow, *E. H.*, determination of sucrose by Hanes' modification of the Hagedorn-Jensen method, A., 386.
 Callow, *E. H.* See also Adair, *G. S.*
 Caló, *A.* See Anselmi, *S.*
 Calthrop, *J. E.*, surface tension hydrometer, A., 730.
 Calvert, *A. W.* See Leeds De-Tinning, Ltd.
 Calvert, *J. T.*, determination of potassium in soil samples by the application of an X-ray method, B., 876.
 Calvert, *M. A.*, length changes of cotton hairs in solutions of caustic soda, B., 1021.
 Calvery, *H. O.*, adenosine from human urine, A., 633.
 embryonic metabolism. V. Tyrosine, tryptophan, cystine, cysteine, and uric acid content of developing hen's eggs, A., 1208.
 Cambi, *L.*, lower oxygenated compounds of nitrogen, A., 177.
 Cambi, *L.*, Bozza, *G.*, and La Rosa, *F.*, reactions between zinc oxide and calcium chloride in presence of carbon dioxide, A., 1386.
 Cambi, *L.*, and Cagnasso, *A.*, reactions between ferrous salts and nitric oxide. II, A., 723.
 Cambi, *L.*, and Ricci, *T.*, arylnitrosoferropentacyanides: formation from arylhydroxylamines and nitroprusside, A., 905.
 Cambron, *A.*, mechanism of formation of thiuram and xanthogen monosulphides, and observations on thiocarbonyl thiocyanates, A., 1027.
 Cambron, *A.*, and Roessler & Hasslacher Chemical Co., accelerator for vulcanisation of rubber, (P.), B., 998.
 Cambron, *A.*, and Whitby, *G. S.*, oxidation of xanthates and some new dialkyl sulphur- and disulphur-dicarbothionates, A., 579.
 Came, *C. L.*, durability tests of spar varnishes, B., 519.
 Cameron, *A. T.*, numbers of molecules and ions in a single cell, A., 358.
 Cameron, *C. N.*, reaction of aniline and benzoin, A., 345.
 Cameron, *D. H.*, [determination of acetic acid in calcium acetate in tan liquors] report of Committee [of the American Leather Chemists' Association] on control of vegetable tanning for heavy leather, B., 113.
 Cameron, *D. H.*, and McLaughlin, *G. D.*, mechanism of vegetable tanning. I. Acidity characteristics of [tan] liquors and extracts, B., 959.
 Cameron, *F. K.*, solubility of ferrous sulphate, A., 683.
 Cameron, *F. K.*, and Lineberry, *R. A.*, apparent sp. gr. and moisture content of clay, B., 906.
 Cameron, *H. K.*, heat of adsorption of (a) oxygen and (b) alcohol vapours on charcoal, A., 683.
 Camp, *T. P.* See Wiss, *J. E.*
 Campa, *A. F.*, and Meehan, *A.*, waterproofing of paper, etc., (P.), B., 185.
 Campan, *T. I.*, gas ionisation by means of positive ions and the secondary emission from platinum, A., 127.
 Campbell, *A. J.* See Moore, *B. J.*
 Campbell, *A. N.*, apparatus for determination of solubility, A., 406.
 Campbell, *A. N.*, and Garrow, *F. C.*, physical identity of enantiomerides, A., 1289, 1579.
 Campbell, *C. H.*, and American Glue Co., reclaimed rubber, (P.), B., 27.
 rubber compositions, (P.), B., 27.
 Campbell, *D. F.*, high-frequency steel furnaces, B., 1068.
 Campbell, *D. F.* See also Burton Foundry Co., Ltd., and Electric Furnace Co., Ltd.
 Campbell, *F. H.*, and Watson, *F. J.*, preservation of standard thiosulphate by means of amyl alcohol, A., 1144.
 Campbell, *H. G.*, electric [muffle] furnace, (P.), B., 774.
 Campbell, *H. N.* See Steacie, *E. W. R.*
 Campbell, *I. G. M.* See Read, *J.*
 Campbell, *J. A.*, tissue tension and carbon monoxide poisoning, A., 101.
 effects of breathing oxygen at high pressures on tissue gas tensions, A., 489.
 method of absorption [of gas in liquids], (P.), B., 126.
 absorber, (P.), B., 691.
 [fractionating] still; scrubber, (P.), B., 889.
 stabilising absorption system [for gasoline], (P.), B., 894.
 Campbell, *J. S.* See Frerichs, *R.*
 Campbell, *J. T.* See Davis, *D. E.*
 Campbell, *K. W. D.*, milking at three eight-hour intervals as a means of investigating variations in the fat and solids-not-fat, A., 810.
 Campbell, *N. R.*, photo-electric thresholds of alkali metals, A., 5.
 Campbell, *N. R.* See also Gen. Electric Co.
 Campbell, *P. A.* See Brit. Thomson-Houston Co., Ltd.
 Campbell, *W. B.*, and Maass, *O.*, equilibria in sulphur dioxide solutions, A., 418.
 Campbell, *W. G.*, degradation of wood by simultaneous action of ethyl alcohol and hydrochloric acid, A., 261.
 destruction of oak wood by powder post and death watch beetles *Lyctus* sp. and *Xestobium* sp., A., 262.
 chemistry of white rots of wood. I. Effect on wood substance of *Polystictus versicolor*, (Linn.) Fr., A., 1485.
 Campbell, *W. G.*, and Booth, *J.*, chemical aspect of the drying of timber, A., 967.
 Campbell, *W. P.*, oil-field waters of Alberta and Saskatchewan, A., 1155.
 Campen, *P. van*, electrically-heated thermostats, A., 729.
 Canada Gypsum & Alabastine, Ltd. See Thomson, *G. M.*
 Canadian Electro Products Co., Ltd., Matheson, *H. W.*, and Skirrow, *F. W.*, manufacture of synthetic gummy or resinous materials, (P.), B., 1039.
 Canadian Electro Products Co., Ltd., and Skirrow, *F. W.*, synthetic gummy or resinous material and its manufacture, (P.), B., 339, 1039.
 Canal, *H.* See André, *E.*
 Canals, *E.*, Canayé, *J.*, and Cabanes, *E.*, physical chemistry of vegetable sap, A., 1482.
 Cananea Consolidated Copper Co., S. A. See Wilkinson, *A. D.*
 Canayé, *J.* See Canals, *E.*

- Candy, *F. P.*, [apparatus for supplying chlorine for] purification of water, (P.), B., 350.
- Canfield, *R. H.*, stability of metallic crystal lattices, A., 670.
- Cann, *J. A.* See Bell's United Asbestos Co., Ltd.
- Cann, (*Miss*) *J. Y.* See Randall, *M.*
- Cannan, *R. K.*, and Muntwyler, *E.*, action of pepsin on gelatin, A., 1317.
- Cannan, *R. K.*, and Richardson, *G. M.*, thiol-disulphide system. I. Complexes of thiol acids with iron, A., 294.
- Cannan, *R. K.* See also Chibnall, *A. C.*
- Canneri, *G.*, partial reduction compounds of molybdates, A., 558.
- Cannicci, *G.*, glutathione in *Teleostei*: methods of determination. I., A., 945.
- glutathione in *Teleostei*. II., A., 1055.
- Canning Town Glass Works, Ltd. See Farrow, *P.*
- Cannon, *H. H.*, and Oliver United Filters, Inc., tubular filter press, (P.), B., 87.
- Canon, *F. A.*, Andrews, *C. E.*, and Selden Research & Engineering Corporation, carrying on catalytic reactions [manufacture of phthalic anhydride from naphthalene], (P.), B., 135.
- Cantarow, *A.*, calcium studies. IV. Calcium content of cerebrospinal fluid. V. Relationship between the calcium content of cerebrospinal fluid and blood-serum, A., 105.
- calcium studies. VI. Effect of parathyroid extract on the diffusibility of calcium in human beings, A., 253.
- Canteau, *S.*, filter for air, gases, and vapours, (P.), B., 270.
- Cantelo, *R. C.*, and Berger, *A. J.*, electrical conductance of cobalt sulphate solutions, A., 1123.
- Cantelo, *R. C.*, and Billinger, *R. D.*, ethyl acetate equilibrium. II. [Salt effect], A., 542.
- Cantiery, *G.*, and International Coal Carbonization Co., rotary retort, kiln, or drum, (P.), B., 408*.
- Cantor, *M.* See Kirchhoff, *R.*
- Capelle, *G.*, fall in purity and polarisation of beet-sugar juices during evaporation, B., 879.
- Capello, *C. F.* See Mascarelli, *L.*
- Cappell, *D. F.*, late results of intravenous injection of colloidal iron, A., 1061.
- Capper, *N. S.*, alleged contamination of carotene by vitamin-A, A., 822.
- carotene and vitamin-A; transformation of carotene into vitamin-A as shown by a study of the absorption spectra of rat-liver oils, A., 1321.
- vitamin-A and carotene, A., 1625.
- Capra, *P.*, influence of intravenous injection of calcium chloride on the fat, sugar, calcium, and potassium of the blood, A., 110.
- Caprino, *G.*, water for brewing, B., 786.
- Capstaff, *J. G.* See Kodak, Ltd.
- Capuchino, *A. S.* See Torres, *C.*
- Capus, *L.* See Kohn-Abrest, *E.*
- Caragea, *S. P.* See Mihăilescu, *M. A.*
- Carbide & Carbon Chemicals Corporation, motor fuels and their manufacture, (P.), B., 704.
- lacquer and varnish thinners, (P.), B., 872.
- Carbide & Carbon Chemicals Corporation. See also Curme, *H. R.*, and Ray, *A. B.*
- Carbone, *G.* See De Paolini, *I.*
- Carbonisation Société Générale d'Exploitation des Carbones, transformation of pig iron into desulphurised and dephosphorised steel or into pure iron, (P.), B., 513.
- Carbonisation Société Générale d'Exploitation des Carbones. See also Jakova-Merturi, *G.*
- Carbonit Akt.-Ges., and Löbbecke, *G. von.*, acceleration of the precipitation of nitroglycerin, (P.), B., 488.
- Carborundum Co., abrasives and method of treating the same, (P.), B., 60.
- furnaces, (P.), B., 86.
- utilising the waste gases from furnaces, (P.), B., 445.
- refractory materials, (P.), B., 510.
- [composite linings for] furnaces, (P.), B., 536.
- apparatus [boiler furnace] for heating fluids, (P.), B., 689.
- Carborundum Co., and Martin, *H. C.*, manufacture of bonded abrasive articles, (P.), B., 1153.
- Carborundum Co., Ltd., heat-treatment [for enamel ware, etc.], (P.), B., 644.
- Carborundum Co., Ltd., and Martin, *H. C.*, manufacture of abrasive paper, (P.), B., 985.
- Carborundum Co., Ltd., and Robie, *N. P.*, manufacture of abrasive articles, (P.), B., 990.
- Carborundum Co., Ltd. See also Garner, *E.*, and Proctor, *D. McI.*
- Carburol Akt.-Ges. See Wolf, *Hermann.*
- Card, *S. T.* See Thole, *F. B.*
- Cardoso, *G. M.* See Schiebold, *E.*
- Cario, *G.*, and Kaplan, *J.*, visible afterglow of active nitrogen, A., 124.
- Cario, *R.* See Meythaler, *F.*
- Carius, *C.*, and Schulz, *E. H.*, rusting of copper steel in the atmosphere and in various waters, B., 195.
- Carlberg, *P.*, [cooling of] electrical resistance [annealing] furnaces, (P.), B., 1160.
- Charles, *H.*, new constituent of peppermint oil, B., 740.
- Carletti, *O.*, reaction of α -naphthol, A., 908.
- Carlier, *J.* See Judd, *G. F.*
- Carlile, *J. H.*, and Sinnatt, *F. S.*, formation of cenospheres as a means of studying the swelling capacity of coal, B., 934.
- Carlisle, *C. G.* See De Silva, *F. A.*
- Carlitz, *J. S.* See Thews, *K. B.*
- Carlson, *G. H.* See Conant, *J. B.*
- Carlton, *R. P.*, and Minnesota Mining & Manufacturing Co., manufacture of abrasive article [flexible sand-paper], (P.), B., 1039*.
- Carlton Main Colliery Co., Ltd., Addy, *R.*, and Gill, *S.*, retorts for the low-temperature distillation of carbonaceous material, (P.), B., 804.
- Carlyle, *E. C.* See Fraps, *G. S.*
- Carman, *J. S.*, Smith, *H. G.*, Havens, *G. C.*, and Murlin, *J. R.*, nutritive value of cereal breakfast foods. II. Digestibility *in vitro*; methods, B., 390.
- Carnahan, *F. L.* See Hurd, *C. D.*
- Carnegie, *D.*, jun. See Atlas Powder Co.
- Carney, *S. C.*, natural gas, B., 544.
- Carni, *A.*, metabolism during lead poisoning, A., 370.
- Carni, *A.*, and Israilevie, *E.*, effect of hydrochloric acid on the fluctuations of phosphorus and calcium metabolism in experimental lead poisoning, A., 498.
- Carnochan, *R. K.*, Parsons, *C. S.*, and Rogers, *R. A.*, reports of investigations: [Canadian] non-metallurgical laboratory, B., 1149.
- Caro, *N.*, Frank, *A. R.*, Franck, *H. H.*, and Heimann, *H.*, preparation of cyanamides of the alkaline-earth metals and magnesium, (P.), B., 283*.
- Caro, *N.*, Frank, *A. R.*, and Stickstoff-Werke Ges.m.b.H., production of the cyanamides of the alkaline-earth metals and magnesium, (P.), B., 1027.
- Caro, *W.* See Frank, *G. von.*
- Carolan, *R. J. P.* See Drumm, *J. J.*
- Caron, *H.*, and Raquet, *D.*, analysis of [medicinal] alcoholic solutions of nitroglycerin, B., 1130.
- Carothers, *W. H.*, association polymerisation and properties of adipic anhydride, A., 1272.
- Carothers, *W. H.*, Arvin, *J. A.*, and Dorrough, *G. L.*, polymerisation and ring formation. V. Glycol esters of oxalic acid, A., 1272.
- Carothers, *W. H.*, and Coffman, *D. D.*, thermal decomposition of sodium and potassium methyls, A., 757.
- Carothers, *W. H.*, and Dorrough, *G. L.*, polymerisation and ring formation. IV. Ethylene succinates, A., 452.
- Carothers, *W. H.*, and Natta, *F. J. van.*, polymerisation and ring formation. III. Glycol esters of carbonic acid, A., 319.
- Carpenter, *C. C.* See Baker, *R. A.*, and South Metropolitan Gas Co.
- Carpenter, *C. D.*, manufacture of arsenates [calcium arsenate], (P.), B., 239.
- Carpenter, *D. C.* See Svedberg, *T.*
- Carpenter, *E. P.*, and American Machine & Foundry Co., manufacture of plastic compositions [from casein], (P.), B., 385.
- Carpenter, *G. B.* See Frolich, *P. K.*
- Carpenter, (*Sir*) *H. C. H.*, and Fisher, *M. S.*, crystal structure of native copper, A., 528.
- Carpenter, *I. C.*, Moorman, *A. R.*, and Contact Filtration Co., [continuous] decolorisation of hydrocarbons, (P.), B., 1102.
- Carpenter, *J. A.*, special [petroleum] products, B., 698.
- Carpenter, *L. G.*, and Stoodley, *L. G.*, specific heat of mercury in the neighbourhood of the m. p., A., 1243.
- Carpenter, *L. M.* See Svedberg, *T.*
- Carpenter, *T. M.*, and Fox, *E. L.*, gaseous exchange of the human subject. I. Ingestion of water at 37°. II. Dextrose. III. Lævulose, A., 1209.
- Carpzow, *J. B.* See Chem. Fabr. Heppes & Co., G.m.b.H., and "Kolloidchemie" Studienges. m.b.H.
- Carr, *A. R.*, and Good, *A. C.*, [helium] inflation of the metal-clad airship ZMC-2, B., 469.
- Carr, *C. J.* See Krantz, *J. C.*, jun.

- Carr, *E. P.*, relation between ultra-violet absorption spectra and heats of combustion, A., 273.
- Carr, *G. R.* See Everett, *C. H.*
- Carr, *R. H.* See Watson, *C. B.*
- Carra, *G.* See Brunelli, *L.*
- Carrasco, *O.*, and Sartori, *E.*, action of heat on preserved tomatoes, B., 638.
- Carrelli, *A.*, Raman effect in the X-ray region, A., 267.
electronic Raman effect, A., 831.
- Carreras, *R. S.*, manufacture of litharge and red lead, (P.), B., 204.
- Carrier Engineering Co., Ltd., treatment of gases with liquids, (P.), B., 3.
- Carrier Engineering Co., Ltd., Fowler, *A.*, and Robertson, *K. J. R.*, apparatus for drying materials, (P.), B., 1.
cleaning of metal articles, (P.), B., 197.
- Carrier Engineering Co., Ltd., and Robertson, *K. J. R.*, cleaning of articles, particularly metallic goods, (P.), B., 197.
apparatus for cleaning articles by solvent vapour, (P.), B., 444.
[apparatus for] cleaning of garments, etc., (P.), B., 458.
degassing of articles [castings, etc.], (P.), B., 725.
- Carrier Engineering Co., Ltd., and Sainty, *C. L.*, eliminating or recovering substances from gaseous bodies, (P.), B., 1097.
- Carrier Engineering Co., Ltd. See also Robertson, *K. J. R.*
- Carrière, *E.*, and Janssens, determination of fluorine as calcium fluoride, A., 879.
- Carrière, *E.*, and Rouanet, determination of fluorine as calcium fluoride, A., 180.
- Carrière, *E. M. L.* See Gat, *E. P. M.*
- Carrière, *J. F.*, four-fluid equilibria, A., 36.
detection of linseed oil in soya-bean oil, B., 66.
- Carroll, *B. H.*, and Hubbard, *D.*, spectral sensitisation of photographic emulsions; bathing with pinacyanol-pinaflavol mixtures, B., 793.
comparison of resolving power and sensitivity of photographic plates with varying development, B., 883.
- Carroll, *L. D.* See Humphreys & Glasgow, Ltd.
- Carroll, *S. J.*, and Eastman Kodak Co., cellulose ether film and composition for making the same, (P.), B., 413.
- Carroll, *W. E.*, Mitchell, *H. H.*, and Hunt, *G. E.*, ferric citrate as an ingredient of mineral mixtures in paired-feeding experiments with growing swine, A., 1061.
potassium iodide as a mineral supplement in paired feeding experiments with growing swine, A., 1208.
- Carroll, *W. E.* See also Hamilton, *T. S.*
- Carrott, *W.* See Butcher, *W. T.*
- Carruthers, *A.*, relationship between lactic acid and carbohydrate in isolated liver tissue, A., 636.
- Carsley, *S. H.*, reduction of alkali nitrates by hydrous ferrous oxide, A., 307.
- Carson, *D.* See Macaulay, *J. M.*
- Carswell, *T. S.*, sulphonamide derivatives as plasticisers for acetyl-cellulose, B., 857.
- Carswell, *T. S.* See also Graesser-Monsanto Chem. Works, Ltd.
- Carta-Satta, *G.* See Ponzio, *G.*
- Carter, *D.*, dyeing of indigo blue serges, B., 369.
- Carter, *G. S.*, thyroxine and the oxygen consumption of spermatozoa, A., 504.
- Carter, *J. M.* See Hildebrand, *J. H.*
- Carter, *N. M.*, synthesis of β -phenylglucoside, A., 583.
synthesis of 2-glycerol- α -glucoside [β - β -dihydroxyisopropylglucoside], A., 1167.
new "acetone" glycerol [α -isopropylideneglycerol], A., 1554.
- Carter, *N. M.* See also Bergmann, *M.*, and Hibbert, *H.*
- Carter, *P. H.*, determination of nitrates by the Kjeldahl method, A., 725.
- Carter, *R. H.*, compatibilities of insecticides. I. Fluosilicates and cryolite with arsenates, B., 297.
fluoaluminates of the alkali metals, B., 945.
solubilities of fluosilicates in water, (P.), B., 945.
- Carter, *R. M.* See Drake, *N. L.*
- Carter, *S. R.*, Haworth, *W. N.*, and Robinson, *R. A.*, conductivity measurements of the comparative rates of hydrolysis of lactones derived from simple sugars, A., 1379.
- Cartier, *A.*, and Gloess, *P.*, treatment of seaweed, (P.), B., 740.
- Catledge, *G. H.*, periodic system. III. Relation between ionising potentials and ionic potentials, A., 1230.
- Cartland, *G. F.*, Heyl, *F. W.*, and Neupert, *E. F.*, cow's ovaries during pregnancy, A., 378.
- Cartwright, *C. H.*, black bodies in the extreme infra-red, A., 521.
theory, design, and construction of sensitive vacuum thermopiles, A., 1549.
- Cartwright, *T.*, washing waste or chimney gases, in connexion with steam-generating plants, blast furnaces, etc., (P.), B., 931.
- Carughi, *A.*, and Paoloni, *C.*, manufacture of a new form of chloride of lime, B., 417.
- Casaburi, *V.*, utilisation of cellulose waste liquors in agriculture, (P.), B., 342.
sodium hydrogen sulphide in the manufacture of glove leather, B., 732.
- Casal, *P.* See Griebel, *C.*
- Casale, *L.*, preparation of mixtures of carbon monoxide and hydrogen from hydrocarbons, (P.), B., 134*.
influence of the p_H value of the medium on alcoholic fermentation. I. Influence exerted by the products of fermentation on the velocity of multiplication of the yeast cell. II. Alcoholic fermentation in liquids of high hydrogen-ion concentration. III., B., 1086.
- Casale-Sacchi, *M.*, effecting catalytic reactions between gases under pressure and at high temperature, (P.), B., 591.
- Casares, *J.*, determination of fluorine by conversion into silicon fluoride, A., 180.
- Casares, *J.*, and Casares, *R.*, detection of fluorine in bones, A., 1465.
- Casares, *R.* See Casares, *J.*
- Case, *F. H.*, and Hill, *A. J.*, action of diazomethane on the pyrimidine constituents of nucleic acids, A., 789.
- Case, *G. O.*, Ellis, *E. M.*, and Montague, *L. H.*, production of cementitious material, (P.), B., 770.
- Case, *T. W.*, and Case Research Laboratory, Inc., source of light [glow-discharge gas-filled lamp], (P.), B., 672.
- Case Research Laboratory, Inc. See Case, *T. W.*
- Cash, *W. A.* See Stephens, *F. G. C.*
- Casimir, *E. E.*, and Popescu, *A.*, determination of moisture in coal, B., 933.
- Caskey, *C.* See Heller, *V. G.*
- Caspari, *W. A.*, dimorphism in the aliphatic dicarboxylic acid series (azelaic acid), A., 139.
- Casparis, *P.*, kola tannins. I. Constituents of fresh kola nuts, A., 1223.
- Casparis, *P.*, and Reber, *K.*, kola tannins. II. Occurrence of catechin in tormentilla root and oak bark, A., 1223.
- Cassel, *H.*, adsorption phenomena in systems of several constituents, A., 991.
- Cassel, *H.*, and Glückauf, *E.*, decomposition of nitrous oxide on heated platinum, A., 1380.
- Cassel, *H.*, and Tödt, *F.*, electrolysis of water under pressure, B., 566.
- Casser, *H.*, work of the heart in absence of oxygen. V. Inhibition of the action of hydrocyanic acid by dihydroxyacetone and glyceraldehyde, A., 639.
- Cassie, *A. B. D.* See Bailey, *C. R.*
- Cassinis, *U.*, and Bracaloni, *L.*, normal and alimentary blood-alcohol during exercise. II., A., 493.
- Cassou, *A. P.*, manufacture of lead sulphate, (P.), B., 324.
- Casteran, *B.* See Montagne, (*Mlle.*) *M.*
- Castiglioni, *A.* See De Paolini, *I.*
- Castilla, *M. M.*, determination of naphthalene in mixtures with phenols and with anthracene, B., 1099.
- Castilla, *M. M.* See also Fernández, *O.*
- Castille, *A.*, ultra-violet absorption spectra of α -methylbutenamides, A., 1276.
- Castille, *A.* See also Maisin, *J.*
- Casto, *L. V.* See Oxford Varnish Corp.
- Catalán, *M. A.*, structure of the cobalt spectrum. III., A., 265.
quantum defect and ultimate lines of the elements of the iron period, A., 394.
partial analysis of the Cr II spectrum, A., 1329.
- Catalytic Chemical Co. See Ackerman, *A. H.*
- Cathcart, *C. S.*, analyses of commercial fertilisers, fertiliser supplies, and home mixtures for 1928, B., 634.
analyses of commercial fertilisers and ground bone; analyses of agricultural lime, 1928, B., 634.
- Catron, *L. F.*, and Lewis, *H. B.*, glycogen formation in liver of young white rat after oral administration of glycerol, A., 1091.
- Cattaneo, *G.*, Jodeck, *P.*, and Allgemeine Gesellschaft für Chemische Industrie m.b.H., continuous treatment of hydrocarbons with sulphur dioxide, (P.), B., 855*.

- Cattelain, *E.*, method of Vanino and Treubert for the gravimetric determination of mercuric salts as mercurous chloride, *A.*, 1148.
- Jena glass filtering crucibles, *A.*, 1153.
- Catterson-Smith, *R. M.*, [tubular heat-treatment] electric furnaces, (*P.*), *B.*, 869.
- Catullo, *M.*, preparation and determination of sodium citrate, *B.*, 119.
- preparation of citric acid, *B.*, 506.
- Cauchois, (*Alle.*) *Y.*, fluorescence of solutions; variation of the polarisation with the concentration and the influence of a non-fluorescent dye, *A.*, 1247.
- Caudri, *J. F. M.*, velocity of hydrolysis and alcoholysis of acetic anhydride in mixtures of water and ethyl or methyl alcohol, *A.*, 300.
- Cauer, *E.* See Auwers, *K. von*.
- Cauer, *H.*, presence of iodine in rocks, soils, and water and its relation to goitre, *A.*, 106.
- Caujolle, *E.* See Hermann, *H.*
- Caujolle, *F.*, elimination of quinine in the bile, *A.*, 812.
- Caujolle, *F.*, and Molinier, *J.*, influence of aliphatic amines and their hydrochlorides on the amylolytic activity of saliva and pancreatin, *A.*, 640.
- Cauquil, (*Alle.*) *G.* See Godchot, *M.*
- Causser, *L. W.* See Bromley, *H. A.*
- Cauwenberg, *W. J.* See Hixson, *A. W.*, and Murch, *W. M.*
- Cauwood, *J. D.*, Davidson, *J. H.*, and Dimpleby, *V.*, analysis of glasses containing phosphate, *B.*, 557.
- Cauwood, *J. D.* See also Boumaker, *E. J. C.*
- Cavanagh, *B.*, general (exact) equation to the potentiometric titration curve, *A.*, 1142.
- Cavara, *F.*, and Chistoni, *A.*, morphine content of opium from hybrids of *Papaver somniferum*, *L.*, *B.*, 263.
- Cave, *H. M.* See Ward, *F. A. B.*
- Cavinato, *A.*, euclase from the Valle Aurina, *A.*, 448.
- Cawley, *C. M.*, Evans, *J. T.*, and Farmer, *E. H.*, properties of conjugated compounds. IX. Formation of binolecular reduction products of butadiene acids, *A.*, 578.
- Cawood, *R. L.*, modernised silica grinding, *B.*, 764.
- Cayzer Tin Smelting Co. (Proprietary), Ltd., ore-reducing furnace, (*P.*), *B.*, 196.
- Cazala. See Clogne, *R.*
- Cazaubon, *E.*, some properties of wheat flours, *B.*, 345.
- Cazaubon, *E.* See also De Vilmorin, *J.*
- Cazaud, *R.*, corrosion of light and ultra-light metals and alloys, *B.*, 1072.
- effect of arsenic on the corrosion resistance of duralumin in sea-water, *B.*, 1072.
- Cazeneuve, *P.*, [effect of] adding sodium bicarbonate to milk, *B.*, 837.
- Cazzani, *V.*, sterilisation of urotropine [hexamethylenetetramine] solutions, *B.*, 37.
- Cecchetti, *B.*, and Ghigi, *E.*, investigations and syntheses in the series of hydrogenated derivatives of carbazole, *A.*, 787.
- Cecchetti, *B.*, and Sarti, *U.*, mercuri-organic compounds of carbazole and tetrahydrocarbazole. I, *A.*, 793.
- Cechnovitz, *E. V.*, silver fluoride; conductivity of silver nitrate, silver fluoride, and hydrogen fluoride at 25°; *E. M. F.* of the chain $\text{Ag}[N/n-\text{AgF}]^{\text{sat.}} \text{KNO}_3 \text{ } N/m-\text{AgNO}_3[\text{Ag}]$ at 25°, *A.*, 863.
- Ceder, *E. T.* See Hirschfelder, *A. D.*
- Celanese Corporation of America, mixing apparatus, (*P.*), *B.*, 886.
- treatment of cellulosic materials and production of cellulose esters therefrom, (*P.*), *B.*, 900.
- Celanese Corporation of America. See also Addy, *C. W.*, Dreyfus, *C.*, Ellis, *G. H.*, Hall, *A. J.*, Miles, *G. W.*, Moss, *W. H.*, Palmer, *C. W.*, and Rivat, *G.*
- Celia, Ltd. See Drum, *J. J.*
- Cellophane Société Anonyme, treatment of cellulose and like films with gas, (*P.*), *B.*, 1047.
- Celluloid Corporation, cellulose derivative compositions, (*P.*), *B.*, 943.
- manufacture of films or sheets, (*P.*), *B.*, 943.
- solvents for and compositions containing cellulose esters, (*P.*), *B.*, 1120.
- cellulose ether, or ester, compositions, (*P.*), *B.*, 1146.
- Cellulose et Papiers (Société de Recherches et d'Applications), preparation of cellulose masses [from straw, etc.], (*P.*), *B.*, 279.
- "Cemil" Società Anonima Italiana and Boggero, *G.*, agglomerating processes [for making paving, flooring, refractories, etc.], (*P.*), *B.*, 1112.
- Centnerszwer, *M.*, dissociation from the point of view of the phase rule, *A.*, 699.
- Centnerszwer, *M.*, and Wittandt, *W.*, velocity of solution of aluminium in alkali solutions, *A.*, 712.
- Central Alloy Steel Corporation. See Farnsworth, *W. M.*, Grossmann, *M. A.*, Orr, *W. S.*, Sergeson, *R.*, Smith, *Earle C.*, and Treverton, *S.*
- Centrifx Corporation. See Hawley, *C. G.*, and Schutz, *J. M.*
- Ceramic Patent Holdings, Ltd. See Mellor, *J. W.*
- Cerdeiras, *J. J.*, action of halogen compounds on ethylene derivatives, *A.*, 449.
- Cerecedo, *L. R.* See Emerson, *O. H.*
- Cerini, *L.*, treatment of vegetable fibres which are used, in the purification by dialysis of caustic soda and like solutions, as osmotic diaphragms, (*P.*), *B.*, 1104.
- Cerruti, *C. F.* See Angeletti, *A.*
- Cézanne, *R. M. A. E.*, retorts for the production of gases from wood, etc., (*P.*), *B.*, 229.
- Chabannais, *J.*, reduction of metal oxides, anhydrides, or metalloid oxides [to lower oxidation stages], (*P.*), *B.*, 765.
- Chabot, *A.*, apparatus for carbonising coal and other fuel, (*P.*), *B.*, 91.
- Chace, *E. M.*, and Church, *C. G.*, inheritance of composition of Washington Navel oranges of various strains propagated as bud variants, *A.*, 965.
- Chadwell, *H. M.*, and Asnes, *B.*, viscosities of several aqueous solutions of organic substances. II, *A.*, 1358.
- standardisation of a modified Ostwald viscosimeter, *A.*, 1396.
- Chadwick, *J.*, scattering of α -particles in helium, *A.*, 1085.
- Chadwick, *J.*, and Gamow, *G.*, artificial disintegration by α -particles, *A.*, 1085.
- Chadwick & Co., Ltd., and Sharples, *F.*, singeing of textile fabrics and yarns, (*P.*), *B.*, 945.
- Chahovitch, *X.*, pituitrin and blood-sugar, *A.*, 1479.
- rôle of the adrenals in synthalin hyperglycaemia, *A.*, 1479.
- Chain Belt Co., concrete mixer, (*P.*), *B.*, 949.
- Chait, *S.* See Saslavsky, *A.*
- Chakravarti, *D.* See Sen, *R. N.*
- Chakravarti, *G. C.* See Betrabet, *M. V.*, and Patel, *P. P.*
- Chakravarti, *M. N.*, Ghosh, *S.*, and Dhar, *N. R.*, determination of the charge on a colloid and the mechanism of its coagulation, *A.*, 541.
- Chakravarti, *S. N.*, and Sen, *K. C.*, adsorption by chemically active surfaces, *A.*, 407.
- Chakravarti, *S. N.* See also Ghosh, *J. C.*
- Chalizev, *A. A.*, preparation of concentrated silicic acid sols, *A.*, 156.
- Chalk, *L. J.*, determination of small amounts of copper in the presence of iron, *A.*, 563.
- Chalk, (*Miss*), *M. L.*, spectrum of H_2 : bands ending on $2p^1\Pi$, *A.*, 1073.
- Chalklin, *F. C.*, soft X-rays of manganese, *A.*, 655.
- some series in the extreme ultra-violet spark spectra of copper, *A.*, 1488.
- Chall, *P.* See Roth, *W. A.*
- Challansonnet, *J.*, dilatometric analysis of certain nickel, vanadium, and nickel-vanadium steels, *B.*, 512.
- Challenger, *F.*, Higginbottom, *C.*, and Huntington, *A.*, nitration of aromatic thiocyanates, *A.*, 332.
- Challenger, *F.*, and Peters, *A. T.*, nitration of benzyl derivatives of certain phosphorus, arsenic, and antimony compounds, *A.*, 98.
- Challenger, *F.* See also Ainley, *A. D.*
- Chalmers, *J.*, and Earl, *J. C.*, hydrolysis of cellulose, *A.*, 1415.
- Chalmers, *J. A.*, absorption of β -rays, *A.*, 659.
- Chalonge, *D.*, continuous spectrum of the hydrogen molecule, *A.*, 1073.
- Chalonge, *D.*, and Zé, *N. T.*, continuous spectra of hydrogen in relation to the Balmer and Paschen series, *A.*, 387.
- variations in the continuous spectrum of the hydrogen molecule with the conditions of excitation, *A.*, 509.
- Chambard, *P.*, analysis of vegetable-tanned leather, *B.*, 629.
- identification of formaldehyde in leathers, *B.*, 733.
- Chamberlain, *E. N.*, sex differences in the cholesterol content of tissues, *A.*, 104.
- Chamberlain, *J.*, and Periam, *H.*, transparent sheet material, (*P.*), *B.*, 237.
- Chamberlain, *N. H.* See Speakman, *J. B.*
- Chamberlin, *C. L.* See Bakelite Corp.
- Chamberlin, *W. E.* See Norris, *J. H.*

- Chambers, *S. B.*, treatment of dairy products, (P.), B., 81.
- Chambers, *W. H.*, and Lusk, *G.*, animal calorimetry. XXXIX. Specific dynamic action in the normal and phloridzinised dog, A., 367.
- Chamie, (*Mlle.*) *C.*, and Guillot, *M.*, centrifuging hydrochloric acid solutions of polonium, A., 854.
- Chaminade, *R.* See Lemoigne, *M.*
- Champagne, *M.*, and Mourot, *G.*, determination of allantoin in animal urine, A., 239.
- Champetier, *G.* See Job, *A.*
- Champion Coated Paper Co., [manufacture of] mineral-coated paper, (P.), B., 859.
- coating paper, (P.), B., 1062.
- Champion Coated Paper Co. See also Bradner, *D. B.*
- Champsaur, *N.*, vegetable oils [as lubricants] in aviation and in automobile engines, B., 1138.
- Chance, *H. M.*, separation of materials of different physical characters, (P.), B., 1051*.
- Chance, *T. M.*, and Staples, *H. O.*, separation of materials of different sp. gravities, (P.), B., 746.
- Chance Bros. & Co., Ltd., and English, *J.*, removal of impurities [iron compounds] from sand and like materials, (P.), B., 419.
- Chandrasekhar, *S.*, ionisation formula and the new statistics, A., 833.
- Chandrasena, *J. P. C.*, methylfurfuraldehyde oxide as a by-product in the preparation of hydroxymethylfurfuraldehyde, A., 1295.
- chemistry of the products of *Cocos nucifera*. I., A., 1483.
- Chang, *H. C.*, and Ling, *S. M.*, glutathione content of the stomach, A., 362.
- the question of the existence of glutathione in the skin: criticism of the modified method of Perlzweig and Delrue, A., 1056.
- Chang, *H. C.* See also Lim, *R. K. S.*
- Channing, *R. H., jun.* See Fischer, *O. A.*, Koenig, *H. T.*, and Lowe, *S. P.*
- Channon, *H. C.* See Smith, *W. S.*
- Channon, *H. J.*, and Collinson, *G. A.*, blood-fat. II. Acetone-ether-soluble fraction, A., 236.
- Chanoz, *M.*, and Cluzet, *G.*, electrical conductivity and viscosity of aqueous solutions, A., 296.
- Chantel, *E.*, distribution of iron in the organism after splenectomy, A., 1469.
- Chanussot, *P.*, 2-iodo-dichloride, 2-iodoso-, and 2-iodoxy-derivatives of fluorene and fluorenone, A., 202.
- Chanussot, *P.* See also Guglielmelli, *L. C.*
- Chanutin, *A.*, and Silvette, *H.*, creatine metabolism in the nephrectomised white rat, A., 243.
- Chao, *C. Y.*, absorption coefficient of hard γ -rays, A., 1086.
- Chapas, solubilities of substituted benzoic acids in chlorinated benzene hydrocarbons, A., 1108.
- solubility curve of benzoic acid in toluene, A., 1363.
- Chapin, *E. S.*, and Jacoby, *A. H.*, treating and ageing of fabrics, (P.), B., 1063.
- Chapin, *E. S.*, Jacoby, *A. H.*, and Deltex Co., treating [ageing or reducing printed or dyed] fabrics, (P.), B., 320.
- Chapin, *R. M.* See Tilley, *F. W.*
- Chaplin, *R.* See Allmand, *A. J.*, and Hollings, *H.*
- Chapman, *A. E.*, and Vielle, *J.*, electric-discharge tubes [for purposes of illumination], (P.), B., 567.
- [electrodes for] luminous electric-discharge tubes, (P.), B., 673.
- Chapman, *A. W.*, influence of a soluble fluoride on the corrosion of iron, A., 1128.
- Chapman, *D. L.*, and Grigg, *P. P.*, mean life of the catalyst in the photochemical union of chlorine and hydrogen, A., 46.
- Chapman, *E.* See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Chapman, *F. C.*, and Chapman Dehydrator Co., dehydrator, (P.), B., 222.
- Chapman, *G. W.*, micro-colorimeter, A., 1152.
- Chapman, *P. F.* See MoBain, *J. W.*
- Chapman, *S.*, measurement of the specific heats of gases, A., 533.
- annual variation of upper atmospheric ozone, A., 1267.
- ozone and atomic oxygen in the upper atmosphere, A., 1396.
- Chapman, *W.*, [production of positives in] colour [for kinematographic or still] photography, (P.), B., 487.
- Chapman, *W. B.* See Andrews, *C. W.*
- Chapman, *W. H.* See Dunlop Rubber Co., Ltd.
- Chapman Dehydrator Co. See Chapman, *F. C.*
- Chappell, *F. R.* See Christiansen, *W. G.*
- Chappell, *M. L.*, and Richfield Oil Co., purification of lubricating oil distillates, (P.), B., 1102.
- Chappell, *M. L.*, Ziser, *G. J.*, and Standard Oil Co. of California, purification of petroleum distillates, (P.), B., 407.
- Chappell, *M. L.* See also Faber, *J. F.*
- Charaux, *C.* See Bridel, *M.*
- Charbonneau, *A.*, manufacture of hydrophilic cotton wool, (P.), B., 456.
- Charbons Actifs & Procédés *E. Urbain*, apparatus for spectral analysis of liquid mixtures, (P.), B., 270.
- Chargaff, *E.*, catalytic decomposition of some iodine compounds; (theory of iodine antiseptics), A., 116.
- Chargaff, *E.* See also Anderson, *R. J.*
- Charlampowiczowna, *B.*, and Marcblewski, *L.*, absorption of ultra-violet light by xylenes, A., 10.
- Charles, *E.*, Clamecy process for the complete treatment of pyroligneous acid, B., 174.
- presence and determination of acetaldehyde in wines, B., 879.
- Charlton, *A. H.*, and Rowe & Co., Ltd., *T. B.*, production of soap threads, (P.), B., 778*.
- Charlton, *H. W.*, production of sand-lime bricks, (P.), B., 666.
- Charmandarian, *M. O.*, application of ammonium oxalate to the qualitative analysis of the first three groups in presence of phosphoric acid, A., 183.
- Charmandarian, *M. O.*, and Perwuschin, *B. J.*, production of a current by motion of an electrode in an electrolyte solution, A., 707.
- Charmandarian, *M. O.*, and Tiutiunnikova, *A. B.*, influence of salts and of poisons on the activity of malt catalase. IV., V., and VI., A., 1064, 1216.
- Charmat, *P.*, manipulation of liquids, (P.), B., 845.
- Charola, *F.*, absorption spectra of vapours of bismuth and antimony; new terms in the arc spectra of both elements, A., 830.
- Charonnat, *R.*, and Delaby, *R.*, new product derived from pyramidone, A., 223.
- constitution of "dioxypyramidone," A., 351.
- Charonnat, *R.* See also Delaby, *R.*
- Charpentier, *E. R. H.* See Adams, *E. Q.*
- Charrier, *G.*, polycondensed heteronuclear systems, A., 96.
- condensation of 2-benzeneazo-1-naphthylamine-4-sulphonic acid, A., 205.
- Charrier, *G.*, and Neri, *A.*, benzeneazomorphine, A., 230.
- 2-phenyl-4:5- α -naphth-1:2:3-triazole-4'-arsinic acid, A., 231.
- Chasanov, *M.*, blood-sugar in diseases of the heart, A., 366.
- Chase, *C. T.*, test for polarisation in a beam of electrons by scattering, A., 6.
- scattering of fast electrons by metals. I. Sensitivity of the Geiger point-discharge counter. II. Polarisation by double scattering at right angles, A., 1492.
- Chase, *E. S.*, and King, *F. G.*, comparison of the modified Babcock and the Mojonier methods for determination of butter fat in ice-cream, B., 391.
- Chasseur, *J.*, furnace roofs, (P.), B., 972.
- Chaston, *J. C.* See Standard Telephones & Cables, Ltd.
- Châtelet, *M.*, mixtures of vapours of iodine and various solvents, A., 679.
- Chater, *W. J.*, effect of heat on wetted vegetable-tanned leathers. V. and VI., B., 574, 732.
- Chattaway, *F. D.*, and Adamson, *A. B.*, action of bromine on the *p*-tolylhydrazones of benzaldehyde and of the nitrobenzaldehydes, A., 342.
- intramolecular rearrangement in the isomeric tetrachloro-derivatives of *p*-tolylhydrazones, A., 775.
- Chattaway, *F. D.*, and Farinolt, *L. H.*, formation of glyoxal-ozones by the interaction of dichloroacetaldehyde and arylhydrazines, A., 323.
- Chattaway, *F. D.*, and Irving, *H.*, interaction of butyl chloral hydrate and 2:4-dihalogenated phenylhydrazines, A., 324.
- Chattaway, *F. D.*, and Kellett, *E. G.*, compounds of the thio-paraldehyde type derived from chloral, A., 194.
- space configuration of the trithioacetaldehydes, A., 1022.
- Chattaway, *F. D.*, and Parkes, *G. D.*, determination of nicotine, A., 227.
- tetrachloroiodides of alkaloids, A., 936.
- Chatterjee, *B.*, attempts to find new anti-malarials. IV. β -Benziminazolyethylamine and β -5(or 6)-ethoxybenziminazolyethylamine, A., 224.
- Chatterjee, *B. D.*, high-frequency discharges, A., 1074.
- Chatterjee, *B. D.* See also Ghosh, *P. N.*

- Chatterjee, *N. P.*, composition of the intermicellar liquid and the precipitation of colloidal solutions of uranium ferrocyanide, A., 1116.
- Chatterji, *A. C.*, and Dhar, *J. M.*, condition of sparingly soluble substances when formed in presence of a gel; silver bromide, silver iodide, and silver cyanide in gelatin, A., 691.
- Chatterji, *A. C.*, and MaoMahon, *P. S.*, action of light on silver bromide, A., 1136.
- Chatterji, *A. C.* See also Mukherjee, *L. N.*
- Chatterji, *K. P.*, and Dhar, *N. R.*, photo-oxidation of chloroform in tropical sunlight, A., 1385.
- Chaudron, *G.* See Herzog, *E.*
- Chaudun, *A.* See Colin, *H.*
- Chaussepied, *A.*, manufacture of sparkling wine and similar non-alcoholic sparkling drinks, (P.), B., 300.
- Chaussin, *J.*, and Blanchard, *E.*, physico-chemical regulation in the internal environment of some agricultural plants, A., 964.
- Chauvenet, *E.*, and Dawidowicz, *J.*, zirconium oxyiodides, A., 1538.
- Chauvenet, *E.*, and Souteyrand-Franck, (*Mme.*), thoryl nitrate, A., 1538.
- Chauvenet, *E.*, and Tonnet, *J.*, hydrolysis of thorium chloride, A., 1250.
- Chauvenet, *E.* See also Bouzat, *A.*
- Chavanne, *G.*, and Bode, (*Mlle.*), action of oxygen on 1:4-dimethylcyclohexane, A., 768, 1035*.
- Chavanne, *G.*, and Miller, *O.*, production of hydrogen and gaseous, saturated hydrocarbons by the action of oxygen on saturated cyclic hydrocarbons containing side-chains at temperatures about 100°, A., 1268.
- Chebotarevich, *M. F.* See Dmitrevskaya, *N. A.*
- Chechik, *S.*, heats of formation of the alcoholates of chloral, A., 746.
- Cheesman, *G. H.*, paraehor of chlorine dioxide, A., 278.
- Cheeseman, *P. E.*, insulation [by perforated paper] of electric conductors, (P.), B., 516.
- Chelberg, *R.*, and Heisig, *G. B.*, activated silica gel in the esterification of salicylic acid and of β -naphthol, A., 1288.
- Chelintchen, *V.*, semi-drying oils and their oxidation in presence of different catalysts, B., 1037.
- Cheltnam, *C. H. W.*, centrifugal apparatus for separating and collecting dust or other solid particles from air and gases, (P.), B., 590.
- Chemical Construction Co. See Hechenbleikner, *I.*
- Chemical Machinery Corporation. See Field, *C.*
- Chemical & Metallurgical Corporation, Ltd. See Smith, *S. C.*
- Chemical Research & Designing Corporation. See Dely, *J. G.*
- Chemie & Technik J.M.S., Ges.m.b.H., and Menz, *H.*, production of (A) phenol-aldehyde resins, (B) discs or sheets for gramophone records, etc., (P.), B., 1120.
- Chemieprodukten Ges.m.b.H. See Schade, *P. F.*
- Chemieverfahren-Ges.m.b.H., production of potassium nitrate with simultaneous production of dimagnesium phosphate, (P.), B., 817.
- decomposition of crude phosphate, (P.), B., 988.
- production of alkali sulphates, (P.), B., 1150.
- Cheminova Ges. zur Verwertung Chemischer Verfahren m.b.H., purification of distillation gases, (P.), B., 1055.
- Chemisch-Pharmazeutische Akt.-Ges., preparation of substitutes for table salt suitable for flavouring purposes, (P.), B., 711.
- Chemisch-Pharmazeutische A.-G. Bad Homburg. See Liebrecht, *A.*
- Chemisch-Technische Ges.m.b.H., distillation of coal, (P.), B., 46.
- briquetting of fuels, (P.), B., 132.
- low-temperature carbonisation process, (P.), B., 404.
- Chemisch-Technische Ges.m.b.H. See also Plassmann, *J.*
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), manufacture of alkylisopropylphenols and their hydrogenation products [thymol, menthol], (P.), B., 136.
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), Görnitz, *K.*, and Goebel, *H.*, protective material for dusting on to plants, (P.), B., 342.
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), and Jordan, *H.*, alkylcoumarans and their manufacture, (P.), B., 135.
- production of thymol, (P.), B., 755*.
- production of hydrogenated phenol compounds, (P.), B., 896*.
- preparation of [alkylated] phenol compounds from dihydroxydiphenylmethane derivatives, (P.), B., 1103*.
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), Schoeller, *W.*, and Jordan, *H.*, production of menthol, (P.), B., 234*.
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), Schoeller, *W.*, and Schmidt, *Kurt*, preparation of oxindole-3-propionic acid, (P.), B., 233.
- Chemische Fabrik auf Aktien (vorm. *E. Schering*), Wreschner, *M.*, and Loeb, *L. F.*, production of a composition [which emits β -rays], (P.), B., 533*.
- Chemische Fabrik K. Albert G.m.b.H., preparation of road-construction and similar material, (P.), B., 242.
- Chemische Fabrik K. Albert G.m.b.H. See also Amann, *A.*
- Chemische Fabrik J. Bellak, evaporators, (P.), B., 492.
- Chemische Fabrik Coswig-Anhalt G.m.b.H., and Drahten, *von*, production of high-percentage, unfused lead monoxide, (P.), B., 57.
- Chemische Fabrik Grünau, Landshoff & Meyer Akt.-Ges., manufacture of *N*-methyl-*p*-aminophenol, (P.), B., 315.
- Chemische Fabrik Grünau, Landshoff & Meyer Akt.-Ges., and Hinrichsen, *C.*, hydraulic binding agents, (P.), B., 375.
- Chemische Fabrik Heppes & Co., G.m.b.H., Carpzow, *J. B.*, and Heppes, *J.*, fertiliser, (P.), B., 297.
- Chemische Fabrik von Heyden Akt.-Ges., treatment of textiles [chloroamine-T as assistant], (P.), B., 416.
- Chemische Fabrik von Heyden Akt.-Ges., and Buehheim, *K.*, regeneration of spent metals which have been used for the production of metal carbonyls, (P.), B., 64.
- Chemische Fabrik von Heyden Akt.-Ges., and Lammering, *D.*, manufacture of *ar*-tetrahydro- β -naphthol derivatives, (P.), B., 586.
- Chemische Fabrik Kalk G.m.b.H. See Oehme, *H.*
- Chemische Fabrik Kunheim & Co. See Meyer, *Friedrich*.
- Chemische Fabrik L. Meyer, dry seed pickling material, (P.), B., 297.
- Chemische Fabrik Milch Akt.-Ges. See Oranienburger Chem. Fabr. A.-G.
- Chemische Fabrik Pott & Co. See Pospiech, *F.*, Pott, *R. H.*, and Sajitz, *R.*
- Chemische Fabrik Reis G.m.b.H., material for combating plant pests, (P.), B., 298.
- Chemische Fabrik vorm. Sandoz, preparation of effect threads, (P.), B., 280.
- dyeing with anthraquinone vat dyes, (P.), B., 280.
- preparation of compounds of *CC*-disubstituted barbituric acids and 4-dialkylamino-1-phenyl-2:3-dimethyl-5-pyrazolones [pyramidone], (P.), B., 302.
- dyeing of chamois leather with sulphur and vat colours, (P.), B., 369.
- dyeing of fibres consisting of cellulose mono- or di-acetate, (P.), B., 370.
- preparation of dyed effect threads, (P.), B., 458.
- manufacture of anthraquinone derivatives, (P.), B., 604.
- manufacture of non-dyeing mordants, and dyeing of basic dyes on cotton, (P.), B., 458.
- immunisation of [cellulose] threads [in wound packages], (P.), B., 505.
- manufacture of [therapeutic] stable supersaturated calcium glutaconate solutions, (P.), B., 1004.
- preparation of water-soluble dyes of the anthraquinone series, (P.), B., 1018.
- manufacture of monoazo-dyes [for wool, etc.], (P.), B., 1061.
- manufacture of polyazo-dyes, (P.), B., 1061.
- Chemische Fabrik vorm. Sandoz, and Tagliani, *G.*, treatment of cellulosic fibres with alkali, (P.), B., 1023*.
- Chemische Fabrik vorm. Sandoz. See also Rothlin, *E.*
- Chemische Fabrik J. Wiernik & Co., Akt.-Ges., Bakelite Ges.m.b.H., and Scheiber, *J.*, increasing the durability of coatings of paints, varnishes, etc., (P.), B., 469.
- preparation of durable paints, (P.), B., 623.
- Chemische Industrie Akt.-Ges. (Chemische Industrie & Papierfabrik Akt.-Ges.), and Meyer, *Hermann*, production of dried [calcium] superphosphate, (P.), B., 556.
- Chemische Industrie & Papierfabrik Akt.-Ges. See Chem. Ind. A.-G.
- Chemische Industrie Van Hasselt. See Naaml. Vennoots. Chem. Ind. Van Hasselt.
- Chemische Werke Carbon Ges.m.b.H., production of highly active carbon, (P.), B., 404.
- Chemische Werke Kirchhoff & Neirath Ges.m.b.H., bleaching of paraffins, etc., (P.), B., 181.
- Chemisches Laboratorium für Anstrichstoffe Ges.m.b.H., manufacture of a stable red lead paste, (P.), B., 624.
- Chemisches Werk Zürich A.-G., apparatus for cleaning articles of metal, etc. [by solvents], (P.), B., 1077.
- Chemnitus, *F.*, manufacture of zinc chloride and zinc sulphate, B., 186.

- Chemnitius, *F.*, technical preparation of tartar emetic, *B.*, 585.
industrial extraction of santonin, *B.*, 685.
- Chemo-Mechanical Water Improvement Co., Inc. See Harrison, *E. F.*
- Chen, *K. K.* See Jensen, *H.*
- Chen, *S. Y.*, [constituents of] *Illicium religiosum*, Siebold, *A.*, 259.
- Chen, *T. T.*, dietary properties of the flat bean (*Dolichos lablab*, *L.*), *A.*, 638.
chemical study of sclerema neonatorum, *A.*, 1469.
- Cheney, *G. H.* See Hale, *W. J.*
- Cheney, *M. B.* See Barnebey, *O. L.*
- Cheramy, *P.*, and Lagarce, *F.*, treatment of extracts for toxicological examination, *A.*, 1628.
- Cherbuliez, *E.*, and Ansbacher, *S.*, determination of copper in organic matter, *A.*, 564.
- Cherry, *O. A.*, and Economy Fuse & Manufacturing Co., manufacture of [resinous] condensation products of phenols [and aldehydes], of urea and formaldehyde, (*P.*), *B.*, 780.
- Cherry, *O. A.*, Kurath, *F.*, and Economy Fuse & Manufacturing Co., manufacture of [resinous] condensation products of phenols [and aldehydes], (*P.*), *B.*, 780.
- Cherry, *R. H.*, some conductivity characteristics of chromic acid and chromic acid chromium-plating solutions, *B.*, 465.
- Cherry, *R. M.* See Brit. Thomson-Houston Co., Ltd., and Gen. Electric Co.
- Chestakoff. See Schestakov.
- Chesters, *J. H.*, relation of m. p. to crystal structure and to compressibility, *A.*, 1356.
- Chesters, *J. H.*, and Rees, *W. J.*, experiments with Indian sillimanite, *B.*, 989.
- Chesters, *J. H.* See also Rees, *W. J.*
- Chetwin, *H. W.*, and Mann, *W.*, reclaiming used lubricating oils, (*P.*), *B.*, 703.
- Chevenard, *P.*, heat treatment of complex ferro-nickels containing two constituents, *B.*, 61.
- Chevenard, *P.*, and Portevin, *A.*, influence of reheating on dilatation and hardness of tempered aluminium-silicon alloys, *B.*, 1032.
secondary tempering of over-tempered steels and stability of austenite, *B.*, 1069.
- Chevenard, *P.* See also Portevin, *A.*
- Chevillard, *L.* See Khouvine, *Y.*
- Chevrier, *P.*, electrolytic production of hypochlorite solutions, (*P.*), *B.*, 283.
- Chevron, *A.*, manufacture of building bricks, flagstones, etc., (*P.*), *B.*, 375.
- Cheymol, *J.* See Hérissé, *H.*
- Chi, *Y. F.* See Johnson, *T. B.*
- Chibnall, *A. C.*, and Cannan, *R. K.*, synthesis of the *r*-hydroxy-asparagines; their dissociation constants, *A.*, 1420.
- Chicago White Lead & Oil Co. See Thomas, *J. E.*
- Chick, *H.*, and Copping, *A. M.*, heat-stability of the (antidermatitis, "antipellagra") water-soluble vitamin-*B.*, II, *A.*, 1321.
- Chick, *H.*, and Roscoe, *M. H.*, heat-stability of the (antidermatitis, "antipellagra") water-soluble vitamin-*B.*, *A.*, 380.
- Chikashige, *M.*, and Ueno, *S.*, coinage metal: forgery detectable without analysis, *B.*, 331.
- Chikashige, *M.*, and Uno, *D.*, colour and fine structure of alloys. IV. Iron-carbon alloys, *A.*, 983.
- Child, *A. M.* See Grewe, *E.*
- Child, *R. O.*, and Anderson & Sons, Ltd., *D.*, grinding and mixing apparatus, (*P.*), *B.*, 799*.
- Child, *W. C.* See Beiswenger, *G. A.*
- Childrey, *J. H.*, Alvarez, *W. C.*, and Mann, *F. C.*, digestion; efficiency with various foods and under various conditions, *A.*, 1470.
- Childs, *A. A.*, Dimbleby, *V.*, Howes, *H. W.*, and Turner, *W. E. S.*, effect of continued remelting of cullet in sillimanite and fireclay vessels, *B.*, 460.
- Childs, *E. C.*, cathode dark space in the Geissler discharge, *A.*, 653.
- Childs, *W. H. J.*, and Mecke, *R.*, intensities in the atmospheric oxygen (intercombination) bands, *A.*, 650.
rotation oscillation spectrum of acetylene. II. Intensity measurements, *A.*, 1236.
- Chilikin, *M. M.*, adsorption of sodium hydroxide by cellulose and mercerisation, *B.*, 610.
- Chillas, *R. B.*, and Weir, *H. M.*, design of fractionating columns, with particular reference to petroleum distillation, *B.*, 447.
- Chillas, *R. B.*, jun., and Atlantic Refining Co., fractional-distillation apparatus, (*P.*), *B.*, 223, 269.
- Chillas, *R. B.*, jun., and Barrett Co., fractional distillation, (*P.*), *B.*, 308*.
- Chillas, *R. B.*, jun., Peterkin, *A. G.*, jun., and Atlantic Refining Co., method of fractionation; fractionating column, (*P.*), *B.*, 694.
- Chillas, *R. B.*, jun. See also Stroud, *W. F.*, jun.
- Chilowsky, *C.*, gasification of heavy oils, (*P.*), *B.*, 93, 402.
manufacture of oil-gas mixtures, (*P.*), *B.*, 547*.
purification of gas, particularly such as results from gasification of heavy oils, (*P.*), *B.*, 894.
- Chines, *C.* See Biazzo, *R.*
- Chino, *S.* See Kaneko, *H.*
- Chintschin, effect of alkalis on rosin-sizing of paper, *B.*, 943.
- Chipman, *H. R.*, Johnson, *F. M. G.*, and Maass, *O.*, heats of solution of certain alkali halides and the specific heat of their solutions, *A.*, 703.
- Chipman, *J.*, and Peltier, *S. B.*, vapour pressure and heat of vapourisation of diphenyl, *A.*, 25.
- Chipman, *R. N.*, herbicide solution of hygroscopic chlorate, (*P.*), *B.*, 163.
killing of weeds and preparations therefor, (*P.*), *B.*, 1125.
non-alkaline chlorate weed-killer, (*P.*), *B.*, 1167.
- Chiról, *R.*, employment of benzol as motor fuel, *B.*, 175.
- Chisholm, *D. C.*, Hannum, *J. A.*, and Collings, *G. E.*, treatment of silk-containing wool materials, (*P.*), *B.*, 138.
- Chistoni, *A.* See Cavara, *F.*
- Chitaev, *A. V.* See Urazov, *G. G.*
- Chittum, *J. F.*, electrochemical behaviour of metals. I. Passivity and corrosion of iron, *A.*, 1527.
- Chizhevski, *N. P.*, determination of the degree of refractoriness of clays by their content of water of constitution, *B.*, 1029.
- Chlopin, *V.*, solubility product of extremely insoluble salts, *A.*, 150.
- Chlopin, *V.*, and Nikitin, *B.*, existence of a new type of mixed crystal of the type BaSO_4 and KMnO_4 ; employment of radioactive indicator method, *A.*, 149.
- Chlopin, *V.*, Polessitski, *A.*, and Tolmatschev, *P.*, distribution of radioactive materials between a solid crystalline and a liquid phase. IV. Distribution of radium between solid crystalline barium nitrate and its saturated aqueous solution at 0° and 25°. V. Distribution of radium between mixed crystals of barium nitrate and lead nitrate and their saturated aqueous solution at 25°, *A.*, 27.
- Chloride Electrical Storage Co., Ltd., [vent for] electric accumulators, (*P.*), *B.*, 291.
- Chloupek, *J.*, electrode potential [of platinum] in solutions of mixtures of ter- and bi-valent manganese salts, *A.*, 545.
- Choate, *S. P.* See Hatch, *T.*
- Chogo, *K.*, and Kubota, *S.*, apparatus for mixing liquid and gas, (*P.*), *B.*, 538.
- Choller, *V.* See Popov, *M. M.*
- Cholnoky, *L. von.* See Zechmeister, *L.*
- Chomse, *H.* See Tiede, *E.*
- Chopra, *R. N.*, and Choudhury, *S. G.*, effect of surface tension on the activity of cinchona alkaloids, *A.*, 955.
- Chopra, *R. N.*, Dikshit, *B. B.*, and Pillai, *A. V.*, rôle of surface tension in the activity of cinchona alkaloids, *A.*, 1471.
- Chorazy, *M.* See Swientoslawski, *W.*
- Chorley, *P.* See Brit. Dyestuffs Corp. Ltd.
- Chorunzhenkov, *S. I.* See Tschernaiev, *I. I.*, and Zvjaginstsev, *O. E.*
- Choucrouron, (*Mlle.*). See Perrin, *J.*
- Choudary, *K. S.*, and Nayudu, *E. Y.*, South Indian myrobalans, *B.*, 206.
- Choudary, *K. S.*, and Yoganandam, *E.*, bark of *Hopea parviflora* as a tanning material, *B.*, 206.
- Choudhury, *S. G.* See Chopra, *R. N.*
- Chowdhury, *J. K.*, and Das, *S. C.*, decolorisation of oils with mixed adsorbents, *B.*, 802.
- Chowdhury, *J. K.*, and Pal, *H. N.*, adsorption of benzol vapour by mixed adsorbents, *B.*, 848.
- Chowdhury, *J. K.*, and Saha, *T. M.*, jute fibre. II. Hemicelluloses, *A.*, 1325.
- Chowdhury, *J. K.*, and Sarkar, *P. B.*, unsaturated acids in fish oil. I. Oil of *Labeo rohita*, *A.*, 1057.
- Chrétien, *A.*, quaternary system water, sodium chloride, sulphate, and nitrate, *A.*, 420*.
- Chrisman, *C. S.*, and U.G.I. Contracting Co., water-gas apparatus, (*P.*), *B.*, 854*.
- Chrisman, *C. S.* See also Humphreys & Glasgow, Ltd.
- Christ, *A.* See Demole, *V.*

- Christen, *C.* See Fester, *G.*
- Christensen, *C. J.*, and Rollefson, *G. K.*, high-intensity non-reversed sodium arc, A., 2.
- influence of the method of excitation on transition probabilities in sodium vapour, A., 2.
- Christensen, *E.*, chemical reaction for vitamins and hormones, A., 822.
- Christensen, *E. V.*, medicinals of the somnifen type, B., 37.
- Christensen, *E. V.* See also Baggesgaard-Rasmussen, *H.*
- Christensen, (*Mrs.*) *K. H.* See Marcus, *M.*
- Christensen, *O.*, index of friability of soils, B., 474.
- Christensen, *P. C.*, production of thermoplastic material [resembling synthetic horn], (P.), B., 679.
- Christensen, *R. H. V.*, [die] casting molten metal under pressure, (P.), B., 20.
- Christian, *B. C.*, and Hilditch, *T. P.*, determination of fully-saturated glycerides as an aid in the analysis of fats, B., 620.
- Christian, *W.* See Warbury, *O.*
- Christiani, *A. F. von.* See Bergmann, *E.*
- Christiansen, *B.*, reduction of [iron] ores, (P.), B., 17.
- roasting and reducing [iron] ores, (P.), B., 17.
- Christiansen, *E.*, mixing or stirring machines, (P.), B., 846*.
- Christiansen, *E.*, and Ericsson, *C. O.*, mixing or stirring machines, (P.), B., 537.
- Christiansen, *J. A.*, historical note on equilibrium between methyl alcohol and its decomposition products, A., 1250.
- Christiansen, *J. A.*, and Huffman, *J. R.*, modified micro-gas burette, A., 1151.
- Christiansen, *W. G.*, Chappell, *F. R.*, Briod, *A. E.*, and Squibb & Sons, *E. R.*, preservation of oils [e.g., cod-liver oil], (P.), B., 778.
- Christiansen, *W. G.* See also Jurist, *A. E.*, Lott, *W. A.*, Smith, *R. E.*, and Winkle, *R. van.*
- Christie, *K. V.*, and Jones, *E. O.*, influence of wolfram on the "combined tin" content of slags produced in the smelting of cassiterite, B., 195.
- Christison, *F.* See Forsythe, *W. E.*
- Christlieb, *H.* See Behre, *A.*
- Christman, *A. A.*, purine metabolism. III. Effect of diet and caging on allantoin excretion of the rabbit, A., 811.
- Christmann, *L. J.*, and American Cyanamid Co., inhibitor [for steel-pickling baths], (P.), B., 150.
- Christmas, *W. W.*, and Hines, *C. C.*, casein-containing plastic composition, (P.), B., 1079.
- Christomanos, *A. A.*, influence of insulin on the fat content of serum, A., 117.
- distribution of residual nitrogen in the blood-serum of diseased persons, A., 1058.
- Christoph, *G. W.*, soldering or like methods of joining metal parts, (P.), B., 617.
- Christopher, *C. F.* See Herty, *C. H., jun.*
- Christy, *A.*, new band system of titanium oxide, A., 265.
- Christy, *A.*, and Bloementhal, *S.*, fine structure analysis of the bands in the *A* and *D* systems of lead oxide, A., 270.
- Christy, *A.* See also Crane, *W. O.*
- Chrobak, *L.*, crystal structure of ammonium cupric chloride, $(\text{NH}_4)_2\text{CuCl}_4 \cdot 2\text{H}_2\text{O}$, A., 20.
- X-ray investigation of easily deformable crystals, A., 278.
- Chrometzka, *F.* See Wieland, *H.*
- Chrom-Industrie *M.* Wommer, ceramic vessel for chromium-plating baths; electroplating with chromium, (P.), B., 290.
- Chrushevov, *M. M.*, and Sharov, *M. V.*, solders for soldering aluminium, B., 911.
- Chrzaszcz, *T.*, and Schechtlowna, *Z.*, amylase of ox and horse saliva, A., 632.
- Chrzaszcz, *T.*, and Tiukov, *D.*, oxalic acid in mould cultures, A., 502.
- relation between starch production and accumulation of acid in moulds (*Penicillium*), A., 1218.
- Chudožilov, *L. K.* See Veselý, *V.*
- Chuit, *P.*, Boelsing, *F.*, and Malet, *G.*, preparation of dimethylated polymethylenedicarboxylic acids and their derivatives, A., 66.
- Chupp, *C.*, effects of potash and phosphorus on tip-burn and mildew of cabbage, B., 680.
- Chur, *E.*, complete removal of ammonia from distillation gases, (P.), B., 357.
- Church, *A. E.* See Norris, *E. R.*
- Church, *C. G.* See Chace, *E. M.*
- Church, *W. H.*, Prindle, *K. E.*, and Du Pont Cellophane Co., Inc., moisture-proof [cellulosic] material, (P.), B., 53*.
- Churchill, *H. V.*, and Bridges, *R. W.*, aluminium hot plate and Dutch oven, A., 1152.
- Chwala, *A.*, manufacture of condensation products [from oils and waxes], (P.), B., 430.
- chemistry of disintegration, B., 797.
- Cialitkian, *O.*, speed of reaction of benzoyl peroxide with secondary amines, A., 1529.
- Cicali, *G.*, production of oxygen and nitrogen, (P.), B., 946*.
- Cimerman, *C.* See Duparc, *L.*
- Cinberg, *S.*, gravimetric determination of vanadium in high-speed steel, B., 1069.
- Cioffi, *P. P.*, hydrogenised iron of high magnetic permeability, A., 1242.
- Cirves, *F. J.* See Frumkin, *A.*
- Cislak, *F. E.*, and Hamilton, *C. S.*, determination of the arsenic content of organic arsenicals, B., 348.
- Cisman, *A.*, Barkhausen effect, A., 1506.
- Cissarz, *A.*, spectrum analysis of Mansfield copper shale, A., 732.
- Ciupka, *von.*, classification of materials extracted from coffee, B., 1129.
- Ciusa, *R.*, and Musajo, *L.*, Doebner's reaction. IX., A., 222.
- salts possessing *o*-, *m*-, or *p*-quinonoid structure. VII., A., 1162.
- Claassen, *A.*, calculation of absorption in X-ray powder photographs and the scattering power of tungsten, A., 278.
- Claassen, *H.*, sugar losses in beet-sugar factories. I., B., 478.
- sugar losses in beet-sugar factories. II. Recovery of sugar from factory waste products, B., 878.
- manufacture of baking yeast, (P.), B., 1002*.
- Clampitt, *A. B.* See Koenig, *H. T.*
- Clapp, *A. L.*, manufacture of oil- and grease-proof liner paper or board, (P.), B., 320.
- utilisation of spent lime cooking liquors in the manufacture of paper, (P.), B., 1105.
- Clapperton, *R. H.*, elimination of "dirt" from paper stock, B., 759.
- Clar, *E.*, polynuclear aromatic hydrocarbons and their derivatives. VII. Syntheses of 1:2:3:4-dibenzpyrene and its derivatives, A., 334.
- Clar, *E.* [with Hempel, *E.*], syntheses of benzofluorene derivatives and ring closure to five-membered, carbocyclic rings by aluminium chloride, A., 465.
- Clar, *E.*, and John, *F.*, polynuclear aromatic hydrocarbons and their derivatives. V. Naphthoanthracenes, the products of their oxidation and a new class of deeply-coloured hydrocarbons, A., 203.
- Clar, *E.*, and Müller, *Werner*, condensation products of anthra-fuchsone, A., 780.
- Clarens, *J.*, and Nikolitch, *S.*, soils. VI. Displaceable acid radicals. VII. Evolution of clay, B., 294.
- Claringbold, *W. E.* See Pickup, *H.*
- Clark, *A. J.*, and White, *A. C.*, ionic changes and the oxygen consumption of the frog's auricle, A., 496.
- Clark, *A. W.*, and Ellis, *H. M.*, incomplete distillation of ammonia in the analysis of ammonium sulphate, B., 417.
- Clark, *E. A.* See Bleecker, *W. F.*
- Clark, *E. M.* See Standard Oil Development Co.
- Clark, *E. P.*, constituents of derris and "cube" roots other than rotenone, A., 967.
- toxicarol: a constituent of the South American fish poison *Cracca* (*Tephrosia*) *toxicaria*, A., 1223.
- Clark, *F. G.*, Smith, *J. N.*, and Clark, *F. G.*, electrolytic apparatus [for electrolysis of water, etc.], (P.), B., 996.
- Clark, *F. M.*, properties of dielectrics. II. Dielectric constant, A., 841.
- Clark, *G.*, grinding face for pulverising, grinding, or mixing machinery, (P.), B., 169.
- Clark, *Gurney.* See Pilcher, *C.*
- Clark, *G. L.*, cellulose as it is completely revealed by X-rays; special application to growth and classification of cotton, structure of wood, and manufacture of rayon, B., 653.
- Clark, *G. L.*, and Amberg, *C. R.*, X-ray investigation of felspar glasses, B., 461.
- Clark, *G. L.*, and Pickett, (*Miss*) *L. W.*, chemical effects of X-rays and the energy relations involved, A., 434.
- crystal structures of some derivatives of diphenyl, A., 528.
- Clark, *G. L.*, Pickett, (*Miss*) *L. W.*, and Farr, *W. K.*, X-ray analysis of cotton fibres, A., 968.
- Clark, *G. L.* See also Parmelee, *C. W.*, and Stillwell, *C. W.*
- Clarke, *H. T.* See Zahnd, *H.*

- Clark, H. W., and Adams, G. O., effect of certain acids on [sewage] sludge digestion, B., 534.
- Clark, J. C. See Gas Light & Coke Co.
- Clark, K. A., road materials, B., 191.
- separation of bitumen from Alberta bituminous sands, B., 850.
- Clark, K. G. See Krase, H. J., and Thompson, J. G.
- Clark, L. H., high-boiling solvents from natural-gas pentanes, B., 651.
- Clark, L. H., and Sharples Specialty Co., oil-purifying apparatus, (P.), B., 407.
- purification of [used mineral] oils, (P.), B., 753.
- Clark, L. H. See also Ayres, E. E., *jun.*
- Clark, N. A., and Collins, E. R., equilibrium between soil and electrolytes and its influence on some lime requirement methods, B., 832.
- Clark, P. V. See Meloche, C. C.
- Clark, R. H., and Hallonquist, E. G., reduction of the nitro-group as a function of polarity, A., 201.
- Clark, R. H., and Streight, H. R. L., preparation of alkyl chlorides from the corresponding alcohols, A., 318.
- Clark, R. H. See also Allardyce, J.
- Clark, T. A. B., method of investigating gas exchanges of living tissues, A., 828.
- Clark, T. W. F., preparation of fumigants, inhalants, etc., (P.), B., 1006.
- Clark, W. See Jelly, E. E.
- Clark, W. E. N., and Electrolux, Ltd., gas burners, (P.), B., 938.
- Clark, W. G. See Weston, E. B.
- Clarke, A. E. See Newton, R.
- Clarke, B. L. See Burns, R. M.
- Clarke, E. A., Coats, H. B., and Brown, G. G., motor-fuel volatility. V. Vapour pressure and vapour lock, B., 802.
- Clarke, E. J., and Alloy Welding Processes, Ltd., electrode for electric welding or soldering [of aluminium or its alloys], (P.), B., 1160.
- Clarke, E. J. See also Alloy Welding Processes, Ltd.
- Clarke, G. R., Newman, L. F., and Ling, A. W., determination of sugar in the beet, B., 477.
- Clarke, H. T., Babcock, G. S., and Murray, T. F., [preparation of] benzenesulphonyl chloride, A., 1029.
- Clarke, H. T., and Brethen, M. R., [preparation of] 1-bromonaphthalene, A., 763.
- Clarke, H. T., and Eastman Kodak Co., manufacture of amino-phenol derivatives, (P.), B., 940.
- Clarke, H. T., Malm, C. J., and Eastman Kodak Co., manufacture of unsaturated acrylcellulose esters, (P.), B., 943.
- Clarke, H. T., Othmer, D. F., and Kodak, Ltd., removal of water from aqueous formic acid, (P.), B., 895.
- Clarke, H. T., and Taylor, E. R., [preparation of] *o*-chlorobenzoic acid, A., 771.
- Clarke, H. T., Waring, C. E., and Eastman Kodak Co., manufacture of keten, (P.), B., 135.
- Clarke, H. T. See also Behr, L. D., and Kodak, Ltd.
- Clarke, I. D. See Frey, R. W.
- Clarke, L. See Starrs, B. A.
- Clarke, R. B. F. F. See Imperial Chem. Industries, Inc.
- Clarke, R. W. L., lubricants, B., 699.
- Clarke, S. G., Kenyon, J., and Phillips, H., preparation of compounds analogous in structure to sulphinic acids but containing *p*-toluenesulphonimido-groups in place of oxygen atoms; phenyl- and methyl-*p*-toluenesulphonimidosulphine-*p*-toluenesulphonylimines, A., 1030.
- Clarke, W. G., and Moore, B. H., treatment of Lake View and Star low-grade sulphide ore, B., 807.
- cyanidation of cupriferous gold ores, B., 951.
- treatment of accumulated concentrates from the Oriental Consolidated Mining Co., Hokuchin, Korea, B., 1075.
- Clarke, Chapman & Co., Ltd., and Woodeson, W. A., [arrangement of burners in boiler] furnaces for burning powdered fuel, (P.), B., 225.
- Clarkson, R. G., and Gomberg, M., spirans with four aromatic radicals on the *spiro*-carbon atom, A., 1188.
- Claron, J., bleaching tussah silk, B., 1106.
- "Clarum" Glaswarenerzeugungs- & Handelsges. m. b. H., purification of monatomic gases, (P.), B., 336.
- Claude, G., synthesis of ammonia by the high-pressure method and the production of the necessary hydrogen, B., 555, 710.
- luminous electric-discharge tubes, (P.), B., 954.
- Claude, G., Gosselin, A. H., and Société Chimique de la Grande Paroisse (Azote & Produits Chimiques), producing simultaneously formates and gaseous mixtures rich in hydrogen, (P.), B., 8*.
- Claude Neon Lights, Inc., [positive-column gaseous] discharge tubes, (P.), B., 1162.
- Clausing, P., cosine law of reflexion as a consequence of the second law of thermodynamics, A., 526.
- formula for molecular streaming according to Smoluchowski and to Gacde, A., 526.
- Clausmann. See Guichard.
- Clavel, (Mme.). See Sédallian, P.
- Clavel, R., production of white or coloured discharges on artificial silks, (P.), B., 238.
- treatment [weighting] of artificial silks, (P.), B., 763*, 986.
- weighting of natural silk, (P.), B., 1025.
- Clavera, J. M., and Guardiola, J. L., chemistry and pharmacology of the thallium salt employed in dermatology, A., 1393.
- Clavera, J. M., and Martin, F. M., extension of certain micro-analytical methods to the determination of lactose, B., 1129.
- Claxton, E. See Armstrong Cork Co.
- Claxton, G. See Hoffer, W. H.
- Clay, H. See Hodgson, H. H.
- Clayton, C. Y. See Hanley, H. R.
- Clayton, E. T. See Tainton, U. C.
- Clayton, H., colour lakes: their manufacture and uses, B., 778.
- Clayton, M. M., and Cummings, M. J., comparative value of different food-proteins for reproduction and lactation in the rat. I. Beef muscle, liver, and kidney, A., 1614.
- Clayton, W. See Crosse & Blackwell, Ltd.
- Clayton Aniline Co., Ltd., and Fritzsche, H., manufacture of condensation products from aldehydes and amines and the application thereof in the manufacture of vulcanised rubber, (P.), B., 549.
- Clean Coal Co., Ltd., Lessing, R., Allen, R. H., and Gygell, E. S., cleaning of carbonaceous materials, (P.), B., 403.
- Cleatron (1927), Ltd., and Sinclair, J. R., electron-discharge devices, (P.), B., 673.
- Cleary, W. D., and De Laval Separator Co., recovery of grease from garbage, (P.), B., 1094.
- Cleaveland, M. See Sherman, H. C.
- Clemence, Le R. W. See Raiziss, G. W.
- Clemens, J., laboratory fractionating column, A., 567.
- Clement, W. J., and Bossert Corporation, method and mechanism for grinding and separating materials, (P.), B., 970.
- Clements, H. F., hourly variations of the carbohydrate content of leaves and petioles, A., 1072.
- Clemm, M., action and utilisation of various water-insoluble phosphates in different soils, especially regarding their influence on the phosphate content of plants, B., 1042.
- Clemo, G. R., and Graham, S. B., *cis-trans*-ethenoid transformation, A., 452.
- Clemo, G. R., Haworth, R. D., and Walton, E., constitution of santonin. II. Synthesis of racemic *desmopotrosantonin*, A., 919.
- Clemo, G. R., and Johnson, H. J., synthesis of *isoindenoquinolines*. I. A., 1446.
- Clendinnen, F. W. J., determination of the capacity of a large vessel, B., 1007.
- Clerc, R. See Schering-Kahlbaum Akt.-Ges.
- Clermont, J. See Benrath, A.
- Cleveland Graphite Bronze Co. See Palm, J. V. O.
- Cleveringa, O. J. See Louwes, S. L.
- Clibbens, D. A. See also Birtwell, C., and Nierenstein, M.
- Clifford, A. M. See Goodyear Tire & Rubber Co.
- Clifton, C. E., and Ort, J. M., active dextrose, A., 706.
- Clingstein, H. See Gen. Aniline Works, Inc., and Grasselli Dye-stuff Corp.
- Clinton Motors Corporation, [mixing] treatment of concrete, (P.), B., 285.
- Clogne, R., Courtois, (Mlle.) A., and Cazala, arsenic content of the Choussy well-water, La Bourboule, and fixation of this arsenic in the organism, A., 886.
- Clos, H. See Hahn, F. L.
- Closs, J. O. See Kahlenberg, L.
- Closs, K. See Lunde, G.
- Cloud, P. H. W., rubberised material, (P.), B., 1040.
- Cloud, W. A., grinding, pulverising, or disintegrating mill, (P.), B., 493*.
- Clow, B., and Marlatt, A. L., vitamin-C in fresh and canned tomatoes, B., 684.
- Clow, B., Marlatt, A. L., Peterson, W. H., and Martin, E. A., vitamin-C content of fresh sauerkraut and sauerkraut juice, A., 381.

- Clusius, K., Hiller, K., and Vaughen, J. V., specific heats of nitrous oxide, ammonia, and hydrogen fluoride from 10° Abs. upwards, A., 1103.
- Clusius, K., and Hinshelwood, C. N., homogeneous catalysis of gaseous reactions, A., 428.
- homogeneous catalysis of gaseous reactions. I. Decomposition of isopropyl ether under the influence of halides. II. Decomposition of diethyl ether catalysed by iodine, A., 1130.
- new examples of homogeneous gas catalysis, A., 1379.
- Clusius, K., and Teske, W., vapour pressures and vapour-pressure constant of carbon monoxide, A., 144.
- Clusius, K. See also Hinshelwood, C. N., and Ruff, O.
- Clutterbuck, W. H., preventing the settling out of paste dyestuffs, (P.), B., 606*.
- Cluzet, G. See Canoz, M.
- Coal Oil Extraction, Ltd. See McEwen, S.
- Coal & Oil Products Corporation. See Schwarz, Alfred.
- Coal Process Corporation. See Wisner, C. B.
- Coates, C. E., and Barnebey, O. L., manufacture of vegetable char, (P.), B., 7.
- Coates, W. M. See Riley & Sons, Ltd., J.
- Coats, H. B. See Clarke, E. A.
- Cobb, E. W. See Titeomb, J. W.
- Cobb, J. W., zinc process for extraction of ammonia and sulphuretted hydrogen from [coal] gas, B., 173.
- Cobb, J. W. See also Sugden, J. A.
- Cobb, R. M., and Lowe, D. V., consistency in the application of coatings to paper, B., 413.
- Coblentz, W. W., and Stair, R., ultra-violet reflecting power of aluminium and several other metals, A., 650.
- ultra-violet solar radiation and the solarisation of window materials, B., 103.
- Coburn, H. H., acid values of dark-coloured resins, B., 623.
- Cochrane, J. R., and Smythe, C. A., calorimetric determination of acetic anhydride, B., 980.
- Cochrane Corporation. See Dahl-Rode, S.
- Cockburn, D., treatment of cotton, woollen, and other textile yarns, (P.), B., 368.
- Cocker, W., Lapworth, A., and Walton, A., primary and associated results of replacement of hydrogen directly attached to 4-coordinated carbon, A., 571.
- Cockerham, G., cambial activity and seasonal starch content in sycamore (*Acer pseudoplatanus*), A., 1626.
- Cocking, T. T., limits for impurities in pharmacopœial chemicals, B., 348.
- Cocking, T. T., and Hymas, F. C., determination of ascaridole in chenopodium oil, B., 486.
- Cocks, H. C., electrodeposition of zinc on aluminium and its alloys, B., 719.
- electrodeposition of zinc on aluminium from sulphate solutions, B., 993.
- Cocksedge, H. E. See Imperial Chem. Industries, Ltd.
- Cocosinchi, A. S., complex alkali copper carbonates, A., 307.
- manganites, manganates, and permanganates. I. Potassium manganite, A., 439.
- manganites, manganates, and permanganates. II., A., 722.
- Codling, A. J., and Woodman, H. E., sugar-beet pulp as a source of pectin, B., 36.
- Codounis, A. See Achard, C., and Grigaut, A.
- Coe, H. S., centrifugal separation, (P.), B., 932.
- Coehn, A., and Cordes, H., quantum efficiency for the photo-chlorination of methane, A., 1135.
- Coehn, A., and Specht, W., protons and electrical conductivity in metals, A., 836.
- Coehn, A., and Spitta, T., influence of drying on the photolysis of carbon dioxide, A., 1383.
- Coffey, B., and Ryan, H., action of alcoholic hydrochloric acid on unsaturated ketones, A., 344.
- constitution of certain compounds formed by the action of alcoholic hydrochloric acid on unsaturated ketones, A., 1583.
- Coffey, J. M. See Sickles, G. M.
- Coffey, S. See Imperial Chem. Industries, Ltd.
- Coffin, C. C., Sutherland, H. S., and Maass, O., reaction between hydrogen chloride and the three butenes, A., 888.
- Coffin, C. C. See also Cohen, E.
- Coffman, D. D., and Marvel, C. S., reaction between alkali-metal alkyls and quaternary phosphonium halides, A., 80.
- Coffman, D. D. See also Adkins, H., and Carothers, W. H.
- Cofman, V., colloids from the biological and thermodynamical points of view, A., 416.
- Cofman, V. See also Devore, H. B.
- Cofman-Nicoresti, disinfectants and the mechanism of antiseptics, A., 253.
- Cofman-Nicoresti, C. A., and Cofman-Nicoresti, G., jellification and solidification of alcoholic beverages, medicines, and alcohol, (P.), B., 528.
- Cofman-Nicoresti, G. See Cofman-Nicoresti, C. A.
- Cogan, H. See Lewis, H. F.
- Coggeshall, G. W., Reilly, A., and Jefferson Construction & Oil Treating Co., separating oily emulsions, (P.), B., 451.
- Cohen, A., and Smiles, S., derivatives of 2-keto-1:2-dihydrothio-naphthen SS-dioxide, A., 613.
- Cohen, A. C. See Thompson, W. O.
- Cohen, B., and Phillips, M., oxidation-reduction. XV. Potentiometric studies of the aminoindophenols: phenol-blue, *m*-tolyl-enediamine-indophenol, and *o*-toluidineindophenol, A., 165.
- Cohen, E., metastability of matter and the so-called physico-chemical constants, A., 1507.
- Cohen, E. [with Addink, H.], metastability of matter, A., 1350.
- Cohen, E., and Coffin, C. C., physico-chemical studies of so-called explosive antimony, A., 1258.
- Cohen, (Miss) E. See McLennan, J. C.
- Cohen, I., bromination of acetone in organic solvents, A., 1164.
- Cohen, N. L. See Rubens, B.
- Cohen, P. See Karelitz, S.
- Cohn, B. E. See Nyswander, R. E.
- Cohn, E. J., and Hendry, J. L., [preparation of] caseinogen, A., 799.
- Cohn, E. W., modification of the Skraup synthesis of quinoline, A., 1445.
- Cohn, R., preservation of raspberry juice with hydrofluoric acid, B., 964.
- Cohn, W. M., standard materials for expansion measurements with solids up to 1400° A., 404.
- measurement of the heat expansion of solid bodies with the aid of photographic and mechanical recording devices, B., 797.
- formation of seeds and bubbles in glass pots, B., 947.
- Cohn, W. M., and Tolksdorf, S., crystalline form of zirconium dioxide in relation to its previous history, A., 1099.
- Cohn, W. M. See also Rother, F.
- Colas Products, Ltd., and Gabriel, L. G., bituminous emulsions, (P.), B., 47.
- Colas Products, Ltd., Gabriel, L. G., and Blott, J. F., bituminous emulsions and their use in the manufacture of road-making and building materials; methods of applying bitumen to a concrete foundation, (P.), B., 178.
- emulsions containing india-rubber, (P.), B., 781.
- Colburn, A. P., relation between mass transfer (absorption) and fluid friction [in gas mixtures], B., 1049.
- Colburn, A. P., and Hougou, O. A., heat transmission. III. Flow of fluids at low velocities, B., 643.
- Coldham, J. C., refining of crude oil, B., 595.
- Coldham, J. E., ore concentration at the North Mount Farrell Mine, West Tasmania, B., 867.
- Cole, C. P., method and apparatus for dyeing or other liquid treatment of silks and other fabrics, (P.), B., 555.
- Cole, G. M., Cox, R. E., and Joseph, G. H., does sugar inversion affect pectin jelly formation? B., 1044.
- Cole, H. I., *Hydnocarpus Wightiana* oil, B., 120.
- reduction of irritation by iodised ethyl esters of *Hydnocarpus Wightiana* oil, B., 121.
- Cole, H. S. See Cox, E. R.
- Cole, H. W., and McLaren, M. W., solidification of carbon dioxide or other gases, (P.), B., 889.
- Cole, P. J. See Barrett Co.
- Cole, S. S., thermal expansion of silica brick and mortars, B., 819.
- Cole, S. S., and Koppers Co., [coloured] refractory products [cements], (P.), B., 1111.
- Cole, W. H., proofing of iron and steel against rust, (P.), B., 618*.
- Cole, William H., and Allison, J. B., chemical stimulation by alcohols in the barnacle, the frog, and *Planaria*, A., 1471.
- Colefax, M. A., material for window glazing and similar purposes, (P.), B., 240.
- Coleman, A. P., age of the earth, A., 734.
- Coleman, J. M. See Enlow, C. R.
- Coleman, R. E., and Economy Fuse & Manufacturing Co., heat treatment of plastic and other material, (P.) B., 998.
- Coleman, W. H., benzol, B., 544.
- anti-detonators, B., 545.

- Coles, H. G., and Morison, C. G. T., dehydration and soil acidity, B., 254.
- Coley, H. E., reduction of ores, oxides, etc., (P.), B., 1077*.
- Colgate-Palmolive-Peet Co., preparation of fine granules of soap, (P.), B., 725, 826.
- Colin, H., and Chaudun, A., the complex between enzyme and products of hydrolysis in the inversion of sugar, A., 1065.
- Colin, H., and Guéguen, E., sugar of the *Florideæ*, A., 825.
- seasonal variations of sugar content in *Florideæ*, A., 825.
- constitution of the principal sugar of *Rhodymenia palmata*, A., 1324.
- Colin, H., and Ricard, P., preparation and properties of laminarin (laminarolose) from *Laminaria flexicaulis*, A., 825.
- sugars and sugar derivatives in brown algae, A., 1072.
- Colin, H., and Simonet, M., viscous fermentation of frozen beet-roots, B., 211*.
- Coll, P. R., and Preioni, P. J., determination of colchicine in the seeds of *Colchicum autumnale*, L., B., 1168.
- Colla, C. See Ferrari, A.
- Colla, S., variations in the oxygen content of the hydrostatic vesicles of various brown algae, A., 1072.
- Collatz, F. A., significance of acidity in flour with reference to flour specifications, B., 213.
- Collatz, H. See Neuberg, C.
- Collazo, I. A. See Bickel, A.
- Colles, R. M., heat losses from plant surfaces, B., 1007.
- Collett, A. R., and Lazzell, C. L., solubility relations of the isomeric nitrobenzoic acids, A., 1108.
- Colley, A. T. W. See Friend, J. A. N.
- Collie, J. H., [enclosed-type] hydrometers [for accumulators], (P.), B., 1162.
- Collin, E. M., electrolytic separation of lead and bismuth with controlled potential, A., 53.
- rapid determination of bismuth and copper in lead bullion by internal electrolysis, B., 773.
- determination of cadmium and copper in spelter and zinc ores by rapid internal electrolysis, B., 951.
- Collin, G., fatty acids from oxidation of mineral oils, B., 938.
- Collin, G., and Hilditch, T. P., regularities in the glyceride structure of vegetable seed-fats, A., 260.
- fatty acids of nutmeg (mace) butter and of expressed oil of laurel, B., 619.
- Dika fat (*Iringia* butter), B., 619.
- Collin, (Mlle.) T. See Lassègue, G.
- Collings, G. E. See Chisholm, D. C.
- Collings, W. R., Shafer, J. J., and Dow Chemical Co., manufacture of a calcium magnesium chloride product, (P.), B., 373.
- Collins, E. R. See Clark, N. A.
- Collins, G. E., swelling of cotton hairs in water and in air at various relative humidities, B., 1021.
- extensibility of cotton hairs, B., 1021.
- Collins, J. R., effect of high pressure on the near infra-red absorption spectrum of certain liquids, A., 1235.
- Collins, L. F. See Walker, J. H.
- Collins, S. C., thermo-regulator, A., 54.
- Collins, T. R. D. See Fagan, H. D.
- Collins, V. A., tanning and other processes for treating solids with liquids, (P.), B., 523.
- Collins, V. A. See also Walsh, V. G.
- Collinson, G. A. See Channon, H. J.
- Collip, J. B., pressor substance from bull's prostate gland, A., 378.
- ovary-stimulating hormone of the placenta, A., 646.
- Collis, W. A., retort and dryer for use in low-temperature carbonising, (P.), B., 1054.
- Collis, W. T. See Robinson, S. J. L.
- Collison, R. C., and Conn, H. J., artificial manure from straw, B., 28.
- Colloid-Chemische Forschungs A.-G., Herzfeld, E., and Walker, H., production of aluminium salts, (P.), B., 1151.
- Cologne, J. See Grignard, V.
- Colonius, H. See Ziegler, K.
- Colour Photographs (British and Foreign) Ltd. See Baker, T. T., and Becker, W. T. S.
- Colour Snapshots (1928) Ltd. See Baker, T. T., Klein, A. B., and Tritton, F. J.
- Colvin, J. See Hume, J.
- Colwell, A. R., induced variations in carbohydrate metabolism. I. Methods and controls. II. Effects of insulin, pancreatectomy, and nervous manipulation of the pancreas, A., 810.
- Colwell, A. R., and Bright, E. M., induced variations in carbohydrate metabolism. III. Fate of retained sugar under normal conditions and after adrenaline and insulin. IV. Suppression of dextrose combustion by continuous prolonged adrenaline administration, A., 961.
- Colwell, R. C., sensitive and manometric flames, A., 1014.
- Comănescu, V. N. See Angelescu, E.
- Comel, M., ergosterol and antirachitic vitamin, A., 1071.
- "ergosterism" in puppies suckled by mothers given excessive doses of irradiated ergosterol, A., 1481.
- Commercial Alcohol Co., Ltd., preparation of glucose, (P.), B., 77.
- Commercial Solvents Corporation, continuous process for preparing *n*-butyl alcohol and acetone by fermentation, (P.), B., 1002.
- Commercial Solvents Corporation. See also Arsem, W. C., Bannister, W. J., and Edmonds, W. J.
- Compagnie de Béthune, production of alcohols by the oxidation of methane, (P.), B., 50.
- manufacture of ethyl alcohol and other products from coal-distillation gases, (P.), B., 358.
- preparation of higher alcohols from ethylene and its homologues, (P.), B., 500.
- Compagnie d'Exploitation des Procédés de Photographie en Couleurs L. Dufay (Versicolor Dufay), apparatus for making mosaic-screens for colour photography, (P.), B., 122.
- [preparation of multi-colour screens for] colour photography, (P.), B., 168.
- Compagnie des Forges de Chatillon-Commentry et Neuves-Maisons, utilisation of the heat of slag, (P.), B., 669.
- Compagnie Française d'Exploitation des Procédés Plinatus, production of artificial leather [from cellulose esters or ethers], (P.), B., 985.
- Compagnie Française d'Exploitation des Procédés Plinatus, and Plinatus, W., production of artificial leather [from cellulose esters or ethers], (P.), B., 319.
- [cellulose binding agent for] joining wood, metal, glass, etc., (P.), B., 504, 656.
- production of plastic masses, (P.), B., 677.
- Compagnie Française pour l'Exploitation des Procédés Thomson-Houston. See Brit. Thomson-Houston Co., Ltd.
- Compagnie Générale de Distillation et Cokéfaction à Basse Température et Minière (Intertrust) Société Anonyme, and Internationale Holding de Distillation et Cokéfaction à Basse Température et Minière (Holcobami) Soc. Anon., low-temperature distillation of bituminous coal and lignite, (P.), B., 804.
- Compagnie Générale d'Electricité, electrical accumulators, (P.), B., 201.
- alkaline accumulator, (P.), B., 201.
- Compagnie Générale des Industries Textiles. See Duhamel, E. C.
- Compagnie Générale des Produits de Synthèse, synthetic liquid fuels, (P.), B., 979.
- Compagnie Internationale pour la Fabrication des Essences et Pétroles, contact material for catalytic cracking and similar operations, (P.), B., 283.
- manufacture of liquid fuels by hydrogenation of vaporous substances in the presence of catalysts, (P.), B., 359.
- treatment of gas or a mixture of gas and vapour in the presence of catalytic agents and reactivation of such agents, (P.), B., 399.
- compositions for the purification of gases, (P.), B., 406.
- [carriers for] catalysts, (P.), B., 493.
- vaporisation of heavy hydrocarbons, (P.), B., 893.
- hydrogenation of the gases [and vapours] derived from the low-temperature distillation of solid fuels, (P.), B., 1054.
- Compagnie Internationale pour la Fabrication des Essences et Pétroles. See also Joseph, A.
- Compagnie Lorraine de Charbons pour l'Electricité, electric arc carbons or electrodes, (P.), B., 1117.
- Compagnie Nationale de Matières Colorantes et Manufactures de Produits Chimiques du Nord Réunies Établissements Kuhlmann, manufacture of chromed complexes of chromable azo-dyes, (P.), B., 183.
- oxidation of phosphorus in presence of steam; condensation of phosphoric acid, (P.), B., 282.
- manufacture of azo-dyes and chromed derivatives thereof, (P.), B., 316.
- Compagnie Nationale de Matières Colorantes et Manufactures de Produits Chimiques du Nord Réunies, Établissements Kuhlmann. See also Durr, A. H. V.
- Compagnie des Mines de Vicoigne, Noeux, & Drocourt. See Vieu, C.

- Compagnie de Produits Chimiques et Electrometallurgiques Alais, Froges, & Camargue, manufacture of α -chloro- α -sulphoacetyl chloride, (P.), B., 409.
hydrogenation catalysts, (P.), B., 410.
preparation of artificial silk, (P.), B., 813.
preparation of primary and secondary amines, (P.), B., 855.
- Compagnie Réunies des Glaces & Verres Spéciaux du Nord de la France, process and plant for casting rough plate glass, (P.), B., 665.
- Compagnie des Surchauffeurs, recovery and use of heat from furnace gases of variable temperature, (P.), B., 846.
- Compagnie des Surchauffeurs. See also Superheater Co., Ltd.
- Complex Ores Recoveries Co. See Coolbaugh, M. F.
- Comptoir des Textiles Artificiels, spinning of artificial silk, (P.), B., 1146.
- Comptoir des Textiles Artificiels Société Anonyme, Bradshaw, W. H., and Hoff, G. P., [tension device for] manufacture of artificial threads, (P.), B., 944.
- Compton, A. H., efficiency of production of fluorescent X-rays, A., 138.
new wave-length standard for X-rays, A., 527.
determination of electron distributions from measurements of scattered X-rays, A., 834.
- Compton, K. G. See Gelbach, R. W.
- Comrie, A. A. D., brewing value of hop tannin, B., 835.
- Comstock & Wescott, Inc., recovery of sulphur from gaseous mixtures containing sulphur vapours, (P.), B., 103.
recovering sulphur and iron oxide from iron sulphide ores, etc., (P.), B., 106.
- Comstock & Wescott, Inc., and Wescott, E. W., treatment of iron [sulphide] ores, (P.), B., 106.
- Comte, separation of maize starch introduced fraudulently into egg powder, B., 391.
- Conant, J. B., Aston, J. G., and Tongberg, C. O., irreversible oxidation of organic compounds. IV. Oxidation of aldehydes, A., 322.
- Conant, J. B., and Carlson, G. H., apparent racemisation of pinene, A., 92.
- Conant, J. B., and Crawford, F. H., absorption spectra of organic compounds at the temperature of liquid air, A., 341.
- Conant, J. B., and Humphrey, W. G., nature of the prosthetic group in *Limulus* haemocyanin, A., 1304.
- Conant, J. B., and Hyde, J. F., chlorophyll series. I. Thermal decomposition of magnesium-free compounds, A., 225.
chlorophyll series. II. Reduction and catalytic hydrogenation, A., 799.
- Conant, J. B., and McGrew, R. V., intermediate compounds in the oxygenation of haemoglobin, A., 358.
- Conant, J. B., and Moyer, W. W., chlorophyll series. III. Products of the phase test, A., 1299.
- Conant, J. B., and Peterson, W. D., rate of coupling of diazonium salts with phenols in buffer solutions, A., 711.
- Conant, J. B., and Tongberg, C. O., oxidation-reduction potentials of haemin and related substances. I. Potentials of various haemins and haematin in presence and absence of pyridine, A., 706.
polymerisation reactions under high pressure. I. Isoprene and butaldehyde, A., 735.
- Concordia Bergbau Akt.-Ges., and Bronn, J. I., production of producer gas with a low sulphur content for use in open-hearth furnaces, (P.), B., 178.
- Concordia Bergbau Akt.-Ges. See also Bronn, J. I.
- Conaway, R. F. See Evans, W. L.
- Condon, E. U., and Shortley, G. H., singlet-triplet interval ratios for sp , sd , sf , p^2 s, and d^2 s configurations, A., 971.
- Condon, E. U. See also Villars, D. S.
- Cone, C. N. See Laucks, I. F. and Rippey, H. F.
- Coniglio, L., lanthanum, cerous, neodymium, and samarium camphorates, A., 348.
- Conn, H. J. See Collison, R. C.
- Connell, G. P. See Gilmore, R. E.
- Connelly, F. C., additional lines in the secondary spectrum of hydrogen, A., 123.
- Connemann, W., preservation of meat and fish refuse, etc, (P.), B., 684.
- Conner, S. D. See Wiancko, A. T.
- Connolly, G. C. See Silica Gel Corp.
- Connor, R. A. See Fuson, R. C.
- Conover, F. S., effect of pigmentation on the work of retraction of rubber compounds, B., 958.
- Conover, J. R., and Laboratory of Research Chemotherapy, chemical emulsion, (P.), B., 1091.
- Conrad, C. M., furfuraldehyde-yielding substance as fission product of protopectin during the ripening of fruits, A., 1223.
- Conrad, J. P., Proebsting, E. L., and McKinnon, L. R., equipment and procedure for obtaining the displaced soil solution, B., 629.
- Conrad, R., occurrence of double positively-charged molecules in canal rays, A., 1494.
- Conrad, R. See also Eisenhut, O.
- Conservation Corporation of America. See Rice, G. E.
- Consolidation Coal Products Co. See McIntire, C. V.
- Consortium für Elektrochemische Industrie G.m.b.H., production of concentrated acetic acid, (P.), B., 135.
manufacture of acetone, (P.), B., 233, 275.
manufacture of acetaldehyde, (P.), B., 275.
manufacture of trichloroethylene, (P.), B., 409.
improving aldehyde resins, (P.), B., 872.
- Consortium für Elektrochemische Industrie G.m.b.H., Dörr, O., and Dörr & Hofman, manufacture of [plastic] artificial masses, (P.), B., 1039.
- Consortium für Elektrochemische Industrie G.m.b.H. See also Hermann, W. O.
- Constable, F. H., sulphide colours on metallic copper, A., 22.
- Constant, E., and Constant, J. (Soc. E. & L. Constant), propellers or screws employed in dyeing machines, (P.), B., 416.
- Constant, F. W., magnetic properties of isolated ferromagnetic atoms, A., 22.
- Constant, L. See Constant, E.
- Constantino, A., arrangements for micro-analysis, A., 886.
- Constantino, S. See Izar, G.
- Contact Filtration Co. See Benjamin, V. C., Black, J. C., Carpenter, I. C., and Prutzman, P. W.
- Conte, E., modified Thiele m.-p. apparatus, A., 729.
- Continental-Diamond Fibre Co. See Bengel, F. H.
- Continental Oil Co. See Ruby, A. H.
- Continental Prodorit Akt.-Ges., preparation of a hard pitch, combining high binding power with high softening point, (P.), B., 132.
- Cook, C. A., and Smith, A. H., determination of isopropyl alcohol in presence of acetone in urine, A., 240.
- Cook, C. A. See also Smith, A. H.
- Cook, E. F., Bellier test for sesame oil, B., 567.
- Cook, J. E., and Somogyi, M., rate of glycolysis in erythremia (polycythemia vera), A., 241.
- Cook, J. W., polycyclic aromatic hydrocarbons. I. 1- and 2-Phenylanthracenes and derivatives of 1:2-benzanthracene, A., 903.
- Cook, J. W. See also Morgan, G. T.
- Cook, R. L., effect of soil type and fertiliser on the nitrate content of the expressed sap and the total nitrogen content of the tissue of the small grains, B., 1042.
- Cook, R. P., pyruvic acid in bacterial metabolism: detection and determination of pyruvic acid, A., 1621.
comparison of dehydrogenations produced by *B. coli communis* in presence of oxygen and methylene-blue, A., 1621.
- Cook, R. P., Haldane, J. B. S., and Mapson, L. W., apparent multiplicity of respiratory enzymes, A., 1618.
- Cook, S. F., effect of low pressures on cell oxidation, A., 1477.
- Cook, S. S., water-hammer erosion, B., 148.
- Cook, W. H., and Malloch, J. G., yeast testing, B., 835.
- Cooke, C. B., drying apparatus [for clothes, etc.], (P.), B., 1149.
- Cooke, F., direct recovery of standard road tars and other tar constituents of coal-distillation gases by fractional condensation, B., 356.
- Cooke, L., [sectional] paving and similar surfaces, (P.), B., 908.
- Cooke, M. B., and Atlantic Refining Co., fractional distillation [of lubricating oil distillate], (P.), B., 546.
fractionating system; method of fractionation, (P.), B., 694.
- Cooke, R. D., design for enamel smelting furnace, B., 1152.
soluble salts in enamels, B., 1152.
- Cooksey, C. D., and Cooksey, D., glancing angle of reflexion from calcite for silver (K_{α}) X-rays, A., 526.
precision measurements of the glancing angle of reflexion from calcite for silver K_{α} X-rays by the method of displacement, A., 1240.
- Cooksey, C. D. See also Cooksey, D.
- Cooksey, C. D., and Cooksey, C. D., untrustworthiness of photographic emulsions on glass for recording distances and a method of minimising this defect, A., 1266.
- Cooksey, D. See also Cooksey, C. D.

- Coolbaugh, M. F., Read, J. B., and Complex Ores Recoveries Co., roasting of [sulphide] ores and minerals, (P.), B., 513.
- Coolhaas, C., dissimilation of salts of fatty acids and of carbohydrates by thermophilic bacteria. II. Starch and sugars, A., 1477.
- Coolidge, A. S., vapour pressure and heats of fusion and vaporisation of formic acid, A., 847.
- Coolidge, J. R., and Montan, Inc., impregnation of wood with rubber, (P.), B., 61.
impregnated wood and process of treating wood; fireproofed wood, (P.), B., 146.
- Coolidge, W. D. See Brit. Thomson-Houston Co., Ltd.
- Cooling & Air Conditioning Corporation, method and apparatus for cooling air; air-treating devices, (P.), B., 844.
- Coombe, C. E., refrigerating machines, (P.), B., 171.
- Coombs, J. A., and Activated Sludge, Ltd., separation or settlement from sewage and other liquids, of matters held in suspension therein, (P.), B., 1006.
- Coon, J. M., microstructure of some West of England siliceous bricks, B., 713.
- Coons, C. M., and Blunt, K., retention of nitrogen, calcium, phosphorus, and magnesium by pregnant women, A., 635.
- Cooper, A. H., construction materials for handling corrosive agents, B., 123.
- Cooper, A. J., and Wardlaw, W., the octammines, with special reference to tin, A., 874.
- Cooper, B. S. See Randall, J. T.
- Cooper, C., Henshaw, D. M., and Holmes & Co., Ltd., W. E., treatment of gases with solids and liquids, (P.), B., 399.
- Cooper, C. M., and Wiezevich, P. J., effects of temperature and pressure on upper explosive limit of methane-oxygen mixtures, A., 167.
- Cooper, C. M. See also Adams, F. W.
- Cooper, D. LeB., and Maass, O., density of carbon dioxide, A., 1244.
- Cooper, D. LeB., and McIntosh, D., adiabatic calorimeter for low-temperature measurements, A., 728.
- Cooper, E. A., and Nicholas, S. D., bacteriological chemistry of heavy metals, B., 966.
- Cooper, F. B., chemistry of tubercle bacillus. I. Analysis of bacilli. II. Analysis of media, A., 1478.
- Cooper, H. P., ash constituents of pasture grasses, their standard electrode potentials and ecological significance, B., 1124.
- Cooper, H. S., and Kemet Laboratories Co., Inc., preparation of thorium hydride, (P.), B., 12.
- Cooper, K. F., sodium cyanide compound and its production, (P.), B., 12.
- Cooper, S. S. See Ward, H. L.
- Cooper, W. C., and Osterhout, W. J. V., accumulation of electrolytes. I. Entrance of ammonia into *Valonia macrophysa*, A., 1483.
- Co-operative Wholesale Society, Ltd., Glover, A., and Couche, C. W., decoloration of [palm] oils, (P.), B., 675.
- Coops, J., jun. See Verkade, P. E.
- Copaux, H., active nitrogen and hydrogen; the two forms of hydrogen, A., 524.
- Cope, F. T., Vaughan, A. H., and Electric Furnace Co., continuous [heat-treatment] furnace, (P.), B., 267.
- Cope, W. H. See Somerville, A. A.
- Copeland, L. C., heat of formation of molecular oxygen, A., 1252, 1523.
- Copeland, P. L., secondary electrons from contaminated surfaces, A., 834.
- Copes, L. G. See Hamilton, J. C.
- Copisarow, M., cell structures and their formation, A., 34.
- Copians, M., stable [medicinal acetyl] salicylate composition, (P.), B., 793*.
- Copp, E. F. F., calcium metabolism in arthritis, A., 365.
- Coppée, E., coke ovens, (P.), B., 979*.
- Coppée Co. (Great Britain), Ltd., and Hunter, T. H., apparatus for recovering fine material, and more particularly fine coal, from settling tanks or towers, (P.), B., 403.
- Coppens, L., allyl and propenyl ketones, A., 324.
- Copping, A. M. See Chick, H.
- Coppoolse, C. W. See Woltjer, H. R.
- Copson, L. R., and Curtis, H. A., calcium chloride and flue gas for waste disposal of kier liquors from textile plants, B., 503.
- Copson, R. L., and Frolich, P. K., vapour-pressure chart for lower aliphatic hydrocarbons, B., 49.
- Coquette, M., determination of impurities in naphthalene, B., 134.
- Corbazz, J. See Ferrero, P.
- Corbellini, A., and Gregorini, B., formation of kojic acid from carbohydrates by the action of *Aspergillus flavus*, A., 959.
- Corbière, J., continuous automatic purification of mercury, A., 567.
- Cordebas, R., graphite lubrication; colloidal graphite, B., 699.
- Cordes, H., and Sponer, H., molecular absorption of chlorine, bromine, iodine chloride, and iodine bromide in the extreme ultra-violet. I., A., 1342.
- Cordes, H. See also Coehn, A.
- Cordier, P., new hydroxydiaralkylsuccinic anhydride, A., 915.
- Corelli, M. R., apparatus for determining the degree of refining of petrol, B., 6.
- Corey, R. B. See Baker, L. E., Ebeling, A. H., and Wyckoff, R. W. G.
- Cori, C. F., and Cori, G. T., action of adrenaline. IV. Influence of adrenaline on lactic acid production and blood-sugar utilisation; effect of adrenaline on arterial and venous blood-sugar in men, A., 116.
influence of insulin and adrenaline on glycogen formation in the liver, A., 254.
- Cori, C. F., Cori, G. T., and Buchwald, K. W., mechanism of adrenaline action. VI. Changes in blood-sugar, lactic acid, and blood-pressure, A., 961.
- Cori, C. F., Villiaume, E. L., and Cori, G. T., intestinal absorption. II. Absorption of ethyl alcohol, A., 950.
- Cori, C. F. See also Cori, G. T.
- Cori, G. T., intestinal absorption. I. Absorption of lactic acid, A., 950.
- Cori, G. T., Cori, C. F., and Buchwald, K. W., mechanism of adrenaline action. V. Changes in liver-glycogen and blood-lactic acid after injection of adrenaline and insulin, A., 645.
- Cori, G. T. See also Cori, C. F.
- Corin, F., chloritoids, A., 1016.
- Cork, C. D. See Stafford, G. A.
- Cork, J. M., molybdenum L-series wave-lengths by ruled gratings, A., 1079.
false lines in X-ray grating spectra, A., 1333.
method for determining critical constants, and its application to diphenyl, A., 1549.
- Corkery, F. W. See Crowley, J. L.
- Corkill, B., influence of insulin on distribution of glycogen in normal animals, A., 961.
- Corl, C. S. See Gnadinger, C. B.
- Cornec, E., and Krombach, H., equilibria between water and the nitrates, chlorides, and sulphates of sodium and potassium, A., 163.
- Cornec, E., Krombach, H., and Spack, A., equilibria between water and the nitrates and sulphates of sodium and potassium, A., 420.
equilibria between water and the nitrates, chlorides, and sulphates of sodium and potassium, A., 1375.
- Cornelia, W. B. See Ryan, H.
- Corneli, W., so-called vitamin-A, A., 1480.
- Cornelius, C. E., electric furnace [for production of glass, cement, etc.], (P.), B., 334.
electric furnace, (P.), B., 774.
- Cornelius, H. P., and Dittler, E., sapphirin from Alpe Brasciadega, Val Codera, Italy, A., 316.
- Corner, G. H. C. See Imperial Chem. Industries, Ltd.
- Corner, G. W. See Bloor, W. R., and Okey, R.
- Cornic, Y., manufacture of artificial sponges of rubber, (P.), B., 918.
- Cornillat, J. M. H., zinc white, (P.), B., 431.
apparatus for manufacture of zinc white, (P.), B., 431*.
- Corning Glass Works, manufacture of electric insulating material [from glass], (P.), B., 775.
- Corning Glass Works, and Hood, H. P., substances transparent to ultra-violet light, (P.), B., 284.
- Corning Glass Works, and Rising, W. H., production of heat-absorbing glasses and batches therefor, (P.), B., 145.
- Corning Glass Works. See also Rising, W. H.
- Cornish, R. E. See Evans, H. M.
- Cornstalk Products Co., Inc. See Darling, E. R., and Dorner, B.
- Cornubert, R., constitution of so-called tetrahydropyrone compounds, A., 343.
possible existence of several dibenzylidenecyclopentanones, A., 474.
- Cornubert, R., and Borrel, C. H. R., constitution of cyclanones. I. and II., A., 347, 776.
constitution of cyclanones. III. Abnormal condensation of dihydrocamphorone and benzaldehyde, A., 1582.

- Cornubert, R., and Humeau, R., properties of the carbonyl group, A., 602.
- Corper, H. J., and Uyei, N., oxalic acid as a reagent for isolating tubercle bacilli; growth of acid-fast, non-pathogenic organisms on different media, and their reaction towards chemical reagents, A., 1318.
- Corran, J. W. See Williams, J.
- Correa, L. M. See Roffo, A. H.
- Correns, C. W., basalt from the Atlantic Ocean, A., 732.
- Correns, E. See I. G. Farbenind. A.-G.
- Corsa, L. U., electrolyser for separation of tin from tin salt solutions, (P.), B., 618.
- Corsi, A., quantitative spectroscopic analysis of solutions, A., 441.
- Corson, B. B., Adams, (Miss) E., and Scott, R. W., [preparation of] ethyl fumarate, A., 743.
- Corson, B. B., Benson, W. L., and Goodwin, T. T., aliphatic acyloins. I. Preparation, A., 1559.
- Corson, B. B., and Hazen, R. K., [preparation of] ethyl mesoxalate, A., 743.
- [preparation of] *m*-nitroacetophenone, A., 778.
- Corson, B. B., Sanborn, N. E., and Ess, P. R. van, benzoylformic acid, A., 773.
- Corson, B. B., Scott, R. W., and Vose, C. E., [preparation of] malononitrile, A., 757.
- Corson, H. P. See Grasselli Chem. Co.
- Corson, M. G., copper alloy systems with an α -phase having variable limits and their use for the hardening of copper, B., 950.
- Corson, M. G., and Electro Metallurgical Co., [nickel-copper-silicon] alloy and its heat treatment, (P.), B., 150.
- Cortelezzi, J., fossil resin, A., 57.
- Cortese, D., hydrogen-ion concentration of the juice of the pear during ripening, B., 789.
- Cortese, F., *Strychnos* alkaloids. III. Structural relationship between strychnine and brucine, A., 229.
- aliphatic diolefines. III. Behaviour of $\Delta^{\alpha\alpha}$ - and $\Delta^{\beta\beta}$ -hexadienes toward hydrochloric acid, A., 735.
- Corwin, F. R., and Harloff, C. S., series system of electrolytic copper refining at Nichols Copper Co., B., 667.
- Cosbie, A. J. See Smith, W. T.
- Cosmulesco, I. See Litareczek, G.
- Cosslett, V. E., and Garner, W. E., critical pressures of ignition of dry and "wet" mixtures of carbon monoxide and oxygen, A., 708.
- Costa, A. E. y. See Kayser, C.
- Costa, N. P., constitution of cements, B., 863.
- Coste, J. H., nomogram for converting observed volumes of gas to normal temperature and pressure, A., 56.
- Costeanu, G. L., cells with sodium cathodes, A., 1125.
- Coster, D., Knol, K. S., and Prins, J. A., differences in the intensity of X-ray reflexion from the two different (111) faces of zinc blende, A., 1334.
- Cotelle, (Mme.) S. See Curie, (Mme.) P.
- Cottet, E. C. See Soc. des Usines Chim. Rhône-Poulenc.
- Cotton, A., asymmetric synthesis and the existence of racemic compounds in solution, A., 193.
- [influence of X-rays, according to Allison, on the magnetic rotatory polarisation and on the properties of inactive liquids], A., 1238.
- existence of racemic compounds in solution and the application of circular dichroism to the synthesis of active compounds, A., 1272.
- Cotton, A., and Scherer, M., magnetic double refraction of petroleum of various origin, B., 496.
- Cotton, R. T., carbon dioxide as an aid in the fumigation of certain highly adsorptive commodities, B., 962.
- Cotton, R. T. See also Back, E. A., and Roark, R. C.
- Cotton, W. See Gen. Aniline Works, Inc.
- Couch, J. F., tremetol, the compound producing "trembles" (milk-sickness), A., 258.
- extracts from the woolly-pod milkweed, *Asclepias eriocarpa*, A., 384.
- toxic constituent of rayless golden-rod, A., 827.
- Couch, J. F. See also Buckley, J. S.
- Couche, C. W. See Co-Operative Wholesale Soc., Ltd.
- Couillaud, preputial calculus, A., 1309.
- Coulson, E. A., anthracene-1-carboxylic and -1:5-dicarboxylic acids and their derivatives, A., 1289.
- Coulson, E. A. See also Morgan, G. T.
- Coulthard, A. See Imperial Chem. Industries, Ltd.
- Coulthard, C. E., Marshall, J., and Pyman, F. L., variation of phenol coefficients in homologous series of phenols, A., 468.
- Coulthurst, L. J. See Kallam, F. L.
- Courard, W. See Müller, W. J.
- Courbier, J., and Boussand, T., rubber lining in the chemical industry, B., 728.
- Cournot, and Molnar, reduction of mechanical properties by corrosion, B., 1072.
- development of the zone of action of galvanic couples, B., 1072.
- Cournot, J., influence of phosphatisation and a finish on the electrical insulation of steel plates, B., 511.
- new methods in the study of corrosion and protection of metallurgical products against corrosion, B., 950.
- Cournot, J. See also Guillet, L., and Roux, A.
- Courtaulds, Ltd., Hegan, H. J., and Taylor, J. H., manufacture of filaments, threads, bands, etc. from viscose, (P.), B., 319.
- Courtaulds, Ltd., Holley, W. F., and Bond, G. D., production of artificial threads by the stretch-spinning process, (P.), B., 413.
- Courtaulds, Ltd., Wood, F. T., and Wells, E. H., apparatus for the manufacture of artificial threads, (P.), B., 760.
- Courtaulds, Ltd., See also Glover, W. H., Hazeley, E., and Hegan, H. J.
- Courth, H., iodine content of organs of pigs in various stages of development and manner of the transition of iodine from mother to foetus and new-born pigling: iodine content of common foodstuffs, A., 107.
- iodine content of pigs, and passage of iodine from the mother to the foetus and new-born pigling, A., 367.
- Courtines, M., and Geloso, J., measurement of small continuous *E.M.F.* without considerable consumption [of current], A., 545.
- Courtney, A. M., calcium and phosphorus concentration in the large and small intestines of children, A., 1313.
- Courtney, A. M., and Brown, A., salt content of human milk in some cases in which its use was not beneficial, A., 1204.
- protein and non-protein fractions of human milk, A., 1204.
- calcium and phosphorus metabolism in older children on mixed diet containing a large or small quantity of milk, A., 1313.
- Courtois, (Mlle.) A., variations in the phosphorus content of Lepidoptera during nymphosis, A., 809.
- high content of non-protein-nitrogen in insects, A., 952.
- Courtois, (Mlle.) A. See also Clogne, R.
- Courtot, C., azo-dyes of the fluorene series, A., 906.
- fluorene series, A., 1424.
- Courtot, C., and Oupéroff, V., condensation of aromatic monoketones with tertiary aromatic amines under the influence of aluminium chloride, A., 1184.
- action of aluminium chloride on arylaliphatic, aliphatic, and hydroaromatic ketones in presence of tertiary aromatic amines, A., 1291.
- Courtot, C., and Pierron, J., β - and γ -ethylenic alcohols and chlorides, A., 735.
- Courty, A., flowability of aluminium and alpac under constant pressure, B., 563.
- Coustal, R., poisons and phosphorogens for phosphorescent zinc sulphide, A., 979.
- Coustal, R., and Prevet, F., optimum concentration of phosphorogen and flux in [phosphorescent] zinc sulphide and the variation with temperature, A., 556.
- Coutts, J., santonin from Scottish-grown *Artemisia*, B., 166.
- Coutts, J. R. H., "single value" soil properties; significance of certain soil constants. III. Technique of the Keen-Raczowski box experiment, B., 875.
- Couture, E., oxidation of oils in the presence of irradiated sterols, A., 434.
- Couture, E. See also Hugounenq, L.
- Covello, M., action of phenylhydrazine on substituted anilinoquinones, A., 346.
- action of hydroxylamine on substituted anilinoquinones, A., 346.
- substituted anilinoquinones, A., 476.
- Cow & Gate, Ltd. See Gates, W. R. B. S.
- Cowan, H. W., method and apparatus for removing vapours, (P.), B., 87*.
- drying of lumber and other moisture-containing materials, (P.), B., 242.
- Cowan, R. J. See De Coriolis, E. G.
- Coward, H. F., and Gleadall, J. J., extinction of methane flames by water vapour, A., 424.
- Cowdery, A. B., and Barrett Co., product and process for rubber compounding, (P.), B., 1040.

- Cowles, A. H., and Electric Smelting & Aluminium Co., detergent and its preparation, (P.), B., 662.
- Cowper-Coles, S. O., electrolytic removal of metal from metallic bodies, (P.), B., 107.
- Cowper-Coles, S. O., Taylor, L., Gould, A. A., and Lucas, P. G., protection of metallic surfaces from corrosion, (P.), B., 107.
- Cox, A. B. See Best, R. J.
- Cox, C. B. See Finemore, H.
- Cox, C. R., prevention of chlorophenol tastes [in water] in New York State, B., 220.
- Cox, D. C. See Gen. Electric Co.
- Cox, E. G., and Shaw, W. F. B., correction factors in the photographic measurement of X-ray intensities in crystal analysis, A., 669.
- Cox, E. H., mechanism and application of the Fries reaction, A., 344.
- Cox, E. P. See Gabriel, A.
- Cox, E. R., Cole, H. S., jun., and California Petroleum Corporation, apparatus for separation of hydrocarbons, (P.), B., 313.
- Cox, G. C., and McIntyre, H. K., [electric] furnace for reducing metals, (P.), B., 913.
- Cox, G. E., and American Cyanamid Co., cooling apparatus, (P.), B., 2.
- Cox, G. J., and Hudson, L., nephropathogenic action of cystine. II. Dietary control of cystine nephrosis, A., 954.
- Cox, G. J., and King, (Miss) H., preparation of monoamino-acids from pterates, A., 73.
- [preparation of] L-tryptophan, A., 787.
- Cox, H. E., chemical examination of furs in relation to dermatitis, B., 183.
- Cox, H. L. See Gough, H. J.
- Cox, I. W., scattering of positive lithium ions in mercury vapour, A., 269.
- Cox, K., McDermott, P. J., and Refiners, Ltd., purification of benzol, petrol, etc., (P.), B., 182*.
- Cox, R. E. See Cole, G. M.
- Cox, R. T. See Myers, F. E.
- Cox, S. J., transfer of colour designs to fibrous materials, (P.), B., 657.
- Cox, T., Knowles, A. S., and Requa, M. L., blending of [creosote] oils, (P.), B., 133.
- Cox, W. M., jun. See Bills, C. E.
- Crabtree, J. J., and Hartt, H. A., properties of [photographic] fixing baths, B., 686.
- Craemer, K. See Gessner, O.
- Cragoe, C. S., thermal properties of petroleum products, B., 228.
- Craig, C. H. C., torbanites of S. Africa, A., 570.
- Craig, D. See Semon, W. L.
- Craig, L. C. [with Hixon, R. M.], synthesis of 1-phenyl- and 1-cyclohexyl-pyrrolidines, A., 480.
- Craig, O., and Riley Stoker Corporation, pulverising apparatus, (P.), B., 268.
- Craig, O. See also Riley, R. S.
- Craig, R. See Lever Bros., Ltd.
- Craigbank Chemical Co., Ltd., and Taylor, J. H., production of bituminous paint or varnish, (P.), B., 1164.
- Craighead, C. M., determination of aluminium and magnesium in zinc-base die-casting alloys, B., 616.
- Cramer, P. L. [with Lewis, W. L.], condensation products of aminoarsanilic [3:4-diaminophenylarsinic] and arsanilic [p-aminophenylarsinic] acids, A., 354.
- Cramer, T. M., extraction of borax [from rasorite, etc.], (P.), B., 556.
- Crandall, G. S. See Davis, H. S.
- Crandall, J. R., impurities in commercial feldspars often overlooked by enamellers, B., 947.
- Crandall, L. A., Leake, C. D., Loevenhart, A. S., and Muehlberger, C. W., rate of elimination of glyceryl trinitrate from the blood after intravenous administration in dogs, A., 110.
- Crane, H. B. See Hughes, W. J.
- Crane, M. D. See Smith, W. O.
- Crane, W. O., and Christy, A., vibrational quantum analysis of the potassium infra-red absorption bands, A., 1329.
- Crane Packing Co., packing of tubular heat-exchangers, (P.), B., 590.
- Cranston, J. A., gas production by bacteria. I. Apparatus for measuring rate of gas production, A., 818.
- electrically controlled thermostat, A., 1153.
- Cranston, J. A., and Laird, J. G., variation of the velocity coefficient of a bimolecular reaction with temperature, A., 548.
- Cranston, J. A., and Lloyd, (Miss) B., bacterial denitrification, A., 644.
- Cranston, J. A. See also Lloyd, (Miss) B.
- Cranston, W. McL., refining of crude mineral oils, (P.), B., 92.
- low-temperature cracking of residual and fuel oils, (P.), B., 313.
- Crater, W. de C., and Hercules Powder Co., charge for blasting caps, (P.), B., 1093.
- Cravath, A. M., rate at which ions lose energy in elastic collisions, A., 1234.
- Craven, A. B., manufacture of a solid resin from the semi-fluid resinous matter extracted from crude gutta-percha and balata, (P.), B., 431*.
- Craven, E. C. See Ormandy, W. R.
- Crawford, B. See Mattill, H. A.
- Crawford, F. H. See Almy, G. M., and Conant, J. B.
- Crawford, G. G., [blast-furnace] tuyère, (P.), B., 17.
- Crawford, J. W. C. See Imperial Chem. Industries, Ltd.
- Crawford, M. E. F., Golding, J., Perry, E. O. V., and Zilva, S. S., fat-soluble vitamins of milk, A., 963.
- Crawford, M. F. See McLennan, J. C.
- Crawford, R. B. P., and Snyder, R. D., electroplating process [deposition of copper-nickel alloys], (P.), B., 721.
- Creaser, C. W., relative importance of hydrogen-ion concentration, temperature, dissolved oxygen, and carbon dioxide tension on habitat selection by brook trout, A., 1059.
- Crececius, [fatal] poisoning by amyl acetate, B., 1170.
- Creech, G. T. See Buckley, J. S.
- Creedon, T. V. See Reilly, J.
- Cremac Marketing Co., Ltd. See Richards, L. S.
- Cremer, E., catalytic behaviour of rare-earth oxides, A., 44.
- Cremer, E., and Schwab, G. M., possible relationship between heat of activation and activity in contact catalysis, A., 42.
- Cremer, L. See Benrath, A.
- Cremonini, A., copper number of cotton, B., 607.
- dripes of *Schinus molles* as adulterant of *Piper nigrum*, B., 1089.
- Crenshaw, J. L., E.M.F. of zinc amalgams, A., 705.
- Crespi, E., and Otto, M. P., bleaching fibres with ozone, (P.), B., 280.
- Crespi, M., graphical methods for the calculation of constants. I. Determination of the order of a reaction, A., 1377.
- Crespi, M., and Moles, E., adsorption of gases by glass walls. VII. Ethylene, A., 990.
- Crespi, M. See also Moles, E.
- Cresson, L. P. F., composite rubber-faced surfacing material, (P.), B., 572.
- Cretcher, L. H. See Nelson, W. L.
- Creuss-Callaghan, G. See Ryan, H.
- Crew, W. H., and Thornton, W. N., bands of continuous spectrum in mercury, A., 125.
- Crick, H. J. See Associated Dyers & Cleaners, Ltd.
- Criegee, R., oxidation of unsaturated hydrocarbons by quadrivalent lead salts, A., 1278.
- Criky, J. von, and Eperjessy, G. von, determination of the lime requirement of soils on the basis of their hydrolytic acidity, B., 73.
- Crippa, G. B., transformation of o-aminoazo-derivatives into quinoxalines, A., 929.
- Crippa, G. B., and Galimberti, P., reaction of o-aminoazo-derivatives with phthalic anhydride, A., 205.
- Criqui, A. A., and Buffalo Forge Co., drying process and apparatus, (P.), B., 745.
- Crisp, C. See Prior, W.
- Cristol, P. See Derrien, E.
- Crittenden, P. J. See Farmer, C. J.
- Croakman, E. G., and National Aniline & Chemical Co., Inc., dyeing of rubber, (P.), B., 729.
- Croakman, E. G. See also Winkelmann, H. A.
- Crocco, H. E., soap, (P.), B., 155.
- Crockatt, W. C., [electrolytic] means for indicating the presence of saline, alkaline, acid, or other impurities in water and other fluids, (P.), B., 955*.
- Crockatt, W. C., and Crockatt & Sons, Ltd., W., means for indicating density and change of density [electrical conductivity] of fluid in evaporators, boilers, and other vessels, (P.), B., 352.
- Crockatt & Sons, Ltd., W. See Crockatt, W. C.
- Crocker, E. C. See Dewey, B.
- Crockett, J. B. See Schildrowitz, P.
- Croekford, H. D., and Hughes, A. E., binary systems of certain nitrotoluenes with benzoic acid, A., 1372.

- Crockford, *H. D.*, and Warwick, *L. E.*, system $\text{CuSO}_4\text{-H}_2\text{SO}_4\text{-H}_2\text{O}$, A., 701.
- Crockford, *H. D.*, and Webster, *M. M.*, system copper sulphate-lithium sulphate-water, A., 1523.
- Crockford, *H. D.*, and Zurburg, *F. W.*, binary systems of certain nitrotoluenes with salicylic acids, A., 293.
- Croft, *C. M.*, Buxton, *R. H.*, and Wandsworth, Wimbledon, and Epsom District Gas Co., automatic means for regulating the calorific value of coal gas, (P.), B., 547.
- Croft, *C. M.* See also Sinclair, *C. L.*
- Croft, *J. P.*, improvement of tea, (P.), B., 1089.
- Crolard, *J. F. M.*, and British-American Tobacco Co., Ltd., manufacture of cigarette paper, (P.), B., 100.
- Croll, *W. F.*, treatment of threads for receiving sound records, (P.), B., 813.
- Crone, *W.* See Tammann, *G.*
- Cronheim, *G.*, and Günther, *P.*, energy yield in the decomposition of chloroform by X-rays and the mechanism of this and similar X-ray reactions, A., 1261.
- Cronheim, *K.*, hydrolysis of proteins under pressure, A., 1197.
- Cronshaw, *G. J. T.* See Brit. Dyestuffs Corp., Ltd.
- Crook, *K. E.*, and McElvain, *S. M.*, piperidine derivatives. X. Piperidylphenylcarbinols [α -hydroxybenzylpiperidines], A., 1593.
- Crook, *W. J.*, and Taylor, *Howard S.*, structure of heat-treated low-carbon steel, B., 1113.
- Crosland, *E. M.* See Vicars, Ltd., *T. & T.*
- Cross, *C. R.*, Fox, *C. J. G.*, Hebbs, *L. G. S.*, and Triplex Safety Glass Co., Ltd., stratified bodies such as strengthened glass, (P.), B., 820.
- Cross, *E. A.*, corrosion of structural steel and steel reinforcing rods encased in concrete, B., 821.
- Cross, *E. J.*, and Perkin, *A. G.*, reduction products of the hydroxy-anthraquinones. XI., A., 607.
- Cross, *H. C.* See Epstein, *S.*
- Cross, *R.*, and Cross Development Corporation, refining of hydrocarbons, (P.), B., 1102.
- Cross, *R.*, and Silica Products Co., manufacture of waterproof concrete, (P.), B., 1030.
- Cross, *R. C.*, and Ware, *H. M.*, heat exchangers, (P.), B., 86.
- Cross, *W. M.*, treatment of petroleum oils, (P.), B., 499.
- Cross, *W. M.*, heat exchanger, (P.), B., 745.
- Cross, *W. M.* See also Phillips, *W. B.*
- Cross Development Corporation. See Cross, *R.*
- Crosse & Blackwell, Ltd., and Clayton, *W.*, manufacture of salad cream, (P.), B., 838.
- Crossley, *F.* See Hartung, *W. H.*
- Crossley, *J. V.*, fast dyeing of cotton and wool, B., 415.
- Crossley, *P. B.*, manufacture of vitreous material, (P.), B., 990.
- Crossman, *F. M.*, binder for fuel agglomerates, (P.), B., 499*.
- Crossman, *F. M.*, drying or carbonising machine [for fuel agglomerates], (P.), B., 806*.
- Crouch, *H.* See Sheppard, *S. E.*
- Croucher, *H. H.* See Bassett, *H.*
- Crouzet, *J.* See Dupont, *G.*
- Crowder, *J. A.* See Anderson, *E.*
- Crowe, *P. L.*, abrading and crushing machine, (P.), B., 745.
- Crowell, *I. H.*, cutting microscopic sections of wood without previous treatment in hydrofluoric acid, A., 1485.
- Crowell, *M. F.* See Titcomb, *J. W.*
- Crowley, *A. J.*, and Humboldt Sulphur Co., extraction of sulphur [from its ore], (P.), B., 1110.
- Crowley, *J. L.*, Corkery, *F. W.*, and Messer, *I. R.*, suspension agents in flat wall paints, B., 67.
- Crowne, *A. A. J.*, electric-discharge devices, (P.), B., 954.
- Crowther, *E. M.*, relationship of climatic and geological factors to the composition of soil clay and the distribution of soil types, A., 1398.
- Crowther, *E. M.*, phosphoric acid of barley grain, B., 922.
- Crowther, *E. M.*, and Basu, *J. K.*, simple two-compartment electro-dialysis cell for the determination of exchangeable bases [in soils], B., 255.
- Crowther, *E. M.* See also Heintze, *S. G.*
- Crowther, *J. A.*, and Orton, *L. H. H.*, absorption of X-rays in gases and vapours. I. Gases, A., 1229.
- Croze, *F.*, electronic structure of atoms, A., 1496.
- Crozier, *R. H.*, cracking of oils, (P.), B., 179, 650*.
- Crucible Steel Co. of America. See McIntosh, *F. F.*
- Cruss, *W. V.* See Fong, *W. Y.*, Glenn, *D. S.*, Jeffrey, *R. N.*, and Pitman, *G. A.*
- Crump, *J. W.* See Bakelite, Ltd.
- Crump, *L.*, and Mitford, *E. R.*, means [coloured paper sheets] for tinting of liquids [for laundry purposes], (P.), B., 140.
- Crump, *L.* See also Mitford, *E. R.*
- Crussard, *M. L.*, agglutination of coals and its relationship to the action of solvents, B., 540.
- Cruz, *A. O.*, and West, *A. P.*, water-white coconut oil and coconut flour, B., 247.
- Cruz, *A. O.*, analysis of Philippine lumbang oil, B., 825.
- Cryder, *D. S.* See Frolich, *P. K.*
- Csapó, *J.*, acid in the blood-serum of children in health and disease, A., 491.
- Csató, *T.* See Kapeller-Adler, *R.*
- Csiký, *J. von*, determination of the unsaturation and lime requirement of soils from their hydrolytic acidity, B., 256.
- Csipke, *Z.*, chemical evaluation of extractum Filicis maris, B., 532.
- Csipke, *Z.*, preparation of extractum hydrastic fluidum and methods of analysis, B., 1090.
- Csonka, *F. A.*, Phillips, *M.*, and Jones, *D. B.*, lignin metabolism, A., 245.
- Csonka, *F. A.* See also Jones, *D. B.*, and Phillips, *M.*
- Csürös, *Z.*, action of nitrosyl bromide on amino-acids, A., 1276.
- Csürös, *Z.* See also Zemplén, *G.*
- Cuckney, *M.* See Gas Light & Coke Co.
- Cudahy Packing Co. See Shipner, *J. R.*
- Cude, *H. E.* See Reel, *J. H.*, and Rose, *R. P.*
- Culhane, *K.*, does cabbage fed to rabbits increase the calcium of the blood-serum? A., 631.
- Cullen, *W.*, modern mining explosives, B., 38.
- Culp, *F. B.* See Remington, *R. E.*
- Culpepper, *C. W.*, and Magoon, *C. A.*, effects of defoliation and root pruning on the chemical composition of sweet-corn kernels, A., 828.
- Culter, *L. M.*, water treatment for raw water ice-making, B., 1093.
- Culter, *S. H.*, inorganic constituents of *Echinacea*, A., 508.
- Culter, *S. H.*, chemistry of digitalis seed, A., 1628.
- Cumming, *W. M.*, and Eaton, *J. C.*, reduction of *m*-nitrobenzaldehyde and its derivatives in neutral solution, A., 602.
- Cummings, *M. J.* See Clayton, *M. M.*
- Cummings, *R.*, and Pike, *R. D.*, production of alkali [sodium carbonate] from natural brine, (P.), B., 711.
- Cummings, *R.* See also Pike, *R. D.*
- Cummins, *H. A.* See Grimes, *M.*
- Cunliffe, *P. W.*, fading of dyed textiles. I., B., 657.
- Cunningham, *A. B.*, and Republic Flow Meters Co., carbon dioxide recorder, (P.), B., 988.
- Cunningham, *G. E.* See Bancroft, *W. D.*
- Cuntz, *H. F.* See Dumas, *H.*
- Cuny, *L.*, and Robert, *J.*, sulphoiodic oxidation of organic substances; xanthyl derivatives, A., 628.
- Cuny, *L.*, iodometric micro-determination of blood-urea. I. Sulphoiodic oxidation, A., 630.
- Curie, (*Mme.*) *I.*, quantity of polonium accumulated in tubes of radon, and the period of radium-D, A., 8.
- Curie, (*Mme.*) *I.*, and Joliot, *F.*, nature of the absorbable radiation accompanying the α -rays of polonium, A., 130.
- Curie, (*Mme.*) *I.* See also Curie, (*Mme.*) *P.*, and Joliot, *F.*
- Curie, (*Mme.*) *P.*, actinium, A., 517.
- Curie, (*Mme.*) *P.*, production of radium by ionium, A., 1233.
- Curie, (*Mme.*) *P.*, and Cotellet, (*Mme.*) *S.*, mean life of ionium, A., 976.
- Curie, (*Mme.*) *P.*, and Curie, (*Mme.*) *I.*, decay of radium-D, A., 8.
- Curie, (*Mme.*) *P.*, and Fournier, *G.*, relation between the disintegration constant of radio-elements emitting α -rays and their filiation capacity, A., 1233.
- Curme, *H. R.*, and Carbide & Carbon Chemicals Corporation, partial oxidation of gaseous hydrocarbons, (P.), B., 8.
- Curran, *C. E.*, and Bray, *M. W.*, reaction variables of the alkaline pulping processes, B., 943.
- Curry, *L. R.*, and Allegheny Steel Co., making ductile high-silicon steel sheets, (P.), B., 288.
- Curtin-Howe Corporation, treatment of wood, fabrics, and other cellulosic materials, (P.), B., 98.
- Curtis, *H. A.* See Ball, *A. M.*, and Copson, *R. L.*
- Curtis, *H. L.*, and Scott, *A. H.*, change of electrical properties of rubber and gutta-percha during storage under water, B., 1164.
- Curtis, *T. S.*, and Vitrefax Co., manufacture of refractory compositions, (P.), B., 190*.
- Curtis, *T. S.*, electric torch furnace [for melting ceramic materials, especially mullite], (P.), B., 672.
- Curtis, *T. S.*, forming ceramic articles, etc., (P.), B., 820*.

- Curtis, W. E., band spectrum of helium, A., 1.
 Curtis, W. E. See also Patkowski, J.
 Curtiss, L. F., sensitive surface of the Geiger tube electron counter, A., 838.
 Geiger tube counter, A., 883, 1080.
 probability of fluctuations in the rate of omission of α -particles, A., 975.
 Curtius, T., decomposition of sulphonazides, A., 760.
 Curtius, T. [with Benckiser, (Frl.) A., Gaier, J., Hochschwender, K., Lehmann, W., Meier, H., Mühlh usser, W., Schenck, M., and Wirbacz, W.], transformation of alkylated malonic acids into α -amino-acids. I. Ester hydrazides of malonic acid. II. Intermediate products in the synthesis of glycine and α -alanine from malon- and methylmalon-azidic acids. III. Synthesis of α -amino- n -valeric acid from n -propylmalonazidic acid and n -butaldehyde from n -propylmalonylazide. IV. *iso*Butyl- and *isopropyl*-malonamic acids and synthesis of α -aminoisovaleric acid from *isopropyl*malonazidic acid. V. Synthesis of α -amino-*isohexoic* acid from *isobutyl*malonazidic acid. VI. Synthesis of α -amino- δ -methylhexoic acid from *isoamyl*malonazidic acid. VII. Synthesis of m -tolylalanine from m -methylbenzylmalonazidic acid. VIII. Synthesis of p -nitrophenylalanine from p -nitrobenzylmalonazidic acid, A., 752.
 Curtius, T. [with Br uning, G. von, and Derlon, H.], hydrazides and azides of phenyl- and ethyl-succinic acids. I. Hydrazide and azide of phenylsuccinic acid. II. Hydrazide and azide of ethylsuccinic acid, A., 766.
 Curtius, T. [with Moll, K., and Fingado, R.], behaviour of *o*-carboxyphenoxyacetic and phenylglycine-*o*-carboxylic acids on azide rearrangement. I. Hydrazides and azides of *o*-carboxyphenoxyacetic acid. II. Hydrazides and azides of phenylglycine-*o*-carboxylic acid, A., 766.
 Curtius, T. [with Sieber, W., Nadenheim, (Frl.) F., Hambsch, O., and Ritter, W.], formation of carbamides from the azides of mono- and di-alkylacetic acids. I. Hydrazide and azide of δ -methylhexoic acid. II. Hydrazide and azide of γ -methyl- α -ethylvaleric acid. III. Hydrazides and azides of *isobutyric* and *isohexoic* acids. IV. Hydrazide and azide of δ -methyl- α -*isobutyl*hexoic acid, A., 755.
 Curtius, T., and Bertho, A., reduction of di- p -dimethylamino-benzaldazine, benzal- p -dimethylaminobenzaldazine, and di- m -nitrobenzaldazine in alkaline and acid solution, A., 776.
 Curtius, T., Bottler, H., and Hasse, G., decomposition of sulphonazides. V. Naphthalene-1-sulphonazide, A., 760.
 Curtius, T., Bottler, H., and Raudenbusch, W., decomposition of sulphonazides. VI. Naphthalene-2-sulphonazide, A., 760.
 Curtius, T., and Derlon, H., decomposition of sulphonazides. VIII. Anthraquinone-2-sulphonazide, A., 760.
 Curtius, T., and D orr, W., action of carbamazide on ethyl fumarate, A., 756.
 Curtius, T., and Hess, A., action of hydrazine on m -cyanobenzoic acid, A., 792.
 Curtius, T., and Klavehn, W., action of benzyl azide on barbituric acid, A., 788.
 action of azido-fatty acid esters and carbamazide on acetylenedicarboxylic esters, A., 791.
 Curtius, T., and Kraemer, G., decomposition of sulphonazides. II. p -Toluenesulphonazide, A., 760.
 Curtius, T., and Meier, H., action of phenylcarbamazide on ethyl malonate, A., 743.
 decomposition of sulphonazides. IV. Benzene-1:3-disulphonazide, A., 760.
 Curtius, T., and Raschig, K., action of benzyl azide on succinic, fumaric, and acetylenedicarboxylic esters, A., 791.
 Curtius, T., and Rissom, J., decomposition of sulphonazides. I. Benzenesulphonazide, A., 760.
 Curtius, T., and Sandhaas, W., formation of hydrazidhydrazides and hydrazides from unsymmetrical aliphatic tricarboxylic acids, A., 757.
 Curtius, T., and Sauerberg, H., action of hydrazine on ethyl- γ -butyrolactone- α -carboxylate, A., 757.
 Curtius, T., and Sieber, W., action of carbamazide on ethyl acetoacetate, ethylacetoacetate, acetonedicarboxylate, and azodicarboxylate, A., 756.
 Curtius, T., and T usen, R., decomposition of sulphonazides. VII. Naphthalene-1:5-disulphonazide, A., 760.
 Curtius, T., and Ulmer, W., hydrazide and azide of p -ethoxybenzoic acid, A., 772.
 Curtius, T., and Vorbach, K., decomposition of sulphonazides. III. p -Chlorobenzenesulphonazide, A., 760.
 Curtler, E. A. See Georgi, C. D. V.
 Cushing, D., metallurgical furnace, (P.), B., 773*.
 Cusmano, G., hydrogenation and dehydrogenation through catalysis by alkali metals, A., 782.
 Custers, J. F. See Ornstein, L. S.
 Cuthbertson, A. C., and Maass, O., hydrogen peroxide. VII. Dielectric constants, refractive indices, and ionising power of hydrogen peroxide and its aqueous solutions, A., 523.
 dielectric constants of water at various temperatures, A., 523.
 Cuthbertson, A. C. See also Moore, L. P., and Percival, E. G. V.
 Cuthbertson, D. P., influence of prolonged muscular rest on metabolism, A., 243.
 disturbance of metabolism produced by bony and non-bony injury, with notes on certain abnormal conditions of bone, A., 1310.
 Cutler, D. W., nitrifying bacteria, A., 376.
 Cutler, L. W., Klein, C. A., and Associated Lead Manufacturers, Ltd., metal-coated articles, [lead-coated paper], (P.), B., 514.
 Cutler-Hammer, Inc. See Bly, R. S., and Wilson, W. C.
 Cutter, J. O., polymerisation of drying oils, B., 517.
 Cuvelier, V., titration of cobalt in presence of nickel and iron, A., 183.
 analyses of some pure [cobalt] compounds, technical products, and cobalt minerals, A., 188.
 Cuyllis, G. E. A., treatment of peat, (P.), B., 403.
 Cuypers, P., influence of the cold-resistivity of neat's-foot oils on the greasiness of the compound oils prepared therefrom, B., 310.
 Cuzin, J., nature of the active radiations in the phenomena of photosensitisation, A., 1215.
 Czapek, E., and Weingand, R., manufacture of sheet-like articles, etc., from cellulose; cellulose precipitating agent, (P.), B., 139*.
 manufacture of foils, films, ribbons, etc., from viscose and similar cellulose solutions, (P.), B., 279*.
 Czapek, E. See also Wolff & Co. Kommandit-Ges. auf Akt.
 Czapl , K., absorption of iron by various technical celluloses, B., 942.
 Czapp, E. See Hantzsch, A.
 Czerny, M., dispersion and absorption of sodium chloride in its residual ray region, A., 136.
 infra-red spectroscopy, A., 1343.
 Czubulka, F. See Niklas, H.
 Czi ke, A. von, production of bile pigments *in vitro*, A., 364.

D.

- Daae, R., gas producer, (P.), B., 46.
 Daams, L., mercury-extracting apparatus, (P.), B., 514.
 Dabadghao, H. M., Raman spectra under high dispersion, A., 1344.
 Dachlauer, K. See I. G. Farbenind. A.-G.
 Dacos, F., crucial experiment on diffusion of electrons, A., 269.
 Dadi , A., physical methods in chemical laboratories. XIV. Raman effect and its applications in organic chemistry, A., 1344.
 constitution of hydrogen cyanide, A., 1498.
 Dadi , A., and Kohlrausch, K. W. F., Raman effect. II. and IV. Raman spectrum of organic substances (benzene derivatives). III. Attempted interpretation of Raman spectra, A., 14.
 constitution of liquid ammonia, A., 397.
 Raman effect. V. Raman spectrum of organic substances (C=O and C=C double linkings; halogen derivatives), A., 522.
 Raman effect and chemistry, A., 663.
 Raman effect. VI. and VII. Raman spectra of organic substances, A., 664, 1091.
 Raman effect in binary mixtures, A., 840.
 Raman effect and problems of constitution, A., 1162.
 D allenbach, W., fusing metal particles into glazes and ceramic products, (P.), B., 284.
 [detection of leaks during] manufacture of high-vacuum vessels and apparatus, (P.), B., 539.
 D aumichen, S., rotation heat of hydrogen at low temperatures, A., 982.

- Daevs, K., mechanical properties of Thomas steel and open-hearth steel, B., 1155.
- Dafert, O., and Fettingier, H., cyclamytretin, A., 920.
- Dafert, O. A. See Brestak, L.
- Dahl, N., production of cooling [refrigerating] liquids, (P.), B., 1051*.
- Dahl, O., effect on the recrystallisation of copper of a second metal which forms a limited series of solid solutions and induces age-hardening, B., 286.
- kinetics of the eutectoidal decomposition of γ -bronzes, B., 377.
- Dahl, O. See also Hafstad, L. R., and Masing, G.
- Dahle, C. D. See Honeywell, H. E.
- Dahlquist, G. J. M. See Arpi, R.
- Dahl-Rode, S., and Cochrane Corporation, manufacture of zeolites, (P.), B., 283*.
- Dahlstrom, R. See Harkins, W. D.
- Daimler, K. See I. G. Farbenind. A.-G.
- Dains, F. B., and Magers, A. W., constitution of certain chloro-iodo- and bromoiodo-anilines, A., 763.
- Dains, F. B., Magers, A. W., and Steiner, W. L., iodination of phenyl and tolyl ethers, A., 767.
- Dains, F. B. See also Moore, F. G., and Olin, J. F.
- Dakin, H. D., aromatic aldehyde derivatives of proteins, peptides, and amino-acids, A., 232.
- Daland, G. A. See Glover, E. C.
- Daleq, A., rôle of calcium and potassium in the initiation of maturation in the egg [of *Barnea candida*], A., 1208.
- Dale, A. J., effects of firing temperature, kind of grog, and grading on the properties of firebrick material, B., 1153.
- Dale, A. J. See also Green, A. T.
- Dale, H. H., and Dudley, H. W., histamine and acetylcholine in the spleen of the ox and the horse, A., 104.
- Dale, J. K., two isomeric crystalline compounds of *d*-mannose with calcium chloride, A., 70.
- Dale, J. K., and Hudson, C. S., relations between rotatory power and structure in the sugar group. XXX. α - and β -Methyl-*d*-galactosides and their tetra-acetates, A., 1023.
- Dale, J. K., and Sun-Maid Raisin Growers of California, syrup and its manufacture, (P.), B., 1085.
- Dalén, G., and American Gasaccumulator Co., porous mass for storage of explosive gases and its manufacture, (P.), B., 854*.
- Dalmatov, M. K., non-protein nitrogen of blood and organs and the alkaline reserve of the blood in experimental uræmia, A., 1059.
- Daloze, R., pure lead hydroxide from crude lead sulphate, (P.), B., 324, 557*.
- Dalton, J. B., Kirk, P. L., and Schmidt, C. L. A., apparent dissociation constants, heat of solution, and apparent heat of ionisation of di-iodotyrosine, A., 1371.
- Dalton, R. H., oxidation of phosphine, A., 1127.
- Daly, A. J. See Brit. Celanese, Ltd.
- Dalzell, R. C. See Wells, A. E.
- Dam, E. S. See Tilley, G. S.
- Dam, H., determination of cholesterol by the digitonin method, especially in hen's eggs and in chickens, A., 242.
- cholesterol in hen's eggs and chickens, A., 242.
- synthesis of cholesterol in the animal body, A., 951.
- Dam, M. E. See Tilley, G. S.
- Dam, W. van. See Backer, H. J.
- Dambergis, C. See Ohle, H., and Thomas, H.
- Damerell, V. R. See Semon, W. L.
- Damian, J., and Dixmier, G., thermal decomposition of [lubricating] oils, B., 699.
- Damianovitch, H., chemical inertia of the rare gases. I. Action of helium on platinum, A., 435.
- Damianovitch, H., and Nicola, O. F. F., chemical kinetics of systems hydrogen peroxide-electrocolloids, A., 427.
- Damodaran, M. See Abderhalden, E.
- Damon, E. B., dissimilarity of inner and outer protoplasmic surfaces in *Valonia*. II., A., 113.
- Damon, E. B., and Osterhout, W. J. V., concentration effect with *Valonia*: potential differences with concentrated and diluted sea-water, A., 965.
- Damon, W. A., chlorine content of coal and its distribution in the products of carbonisation, B., 847.
- Danaila, N., Stoescu, V., and Dinescu, S., influence of various hydrocarbons, especially of the unsaturated (olefines) and aromatic type, on the illuminating capacities of lamp oils, B., 175.
- Danckwort, P. W., American "poison barley," B., 37.
- Dandridge, A. G., Drescher, H. A. C., Thomas, J., and Scottish Dyes, Ltd., manufacture and use of [vat] colouring matters [from phthalic anhydride, ammonia or amines, and a metal], (P.), B., 316.
- Dandswardt, P., obtaining hydrocarbons of low b. p. from hydrocarbons of high b. p., (P.), B., 358.
- Danet, R., urobilin in urine, A., 239.
- Dangard, P., some sea-weeds containing iodine, A., 120.
- influence of oxygen on the volatilisation of iodine, A., 385.
- separation from *Laminariae* of a complex compound containing labile iodine, A., 1326.
- Dangerfield, V. H. M. A., apparatus for generating actinic rays, (P.), B., 466.
- Daniel, A. P. See Brennan, E. M.
- Daniel, L. See Ricard, A. E.
- Daniell, P. J., theory of flame motion, A., 424.
- Daniels, A. C. See Huffman, H. M.
- Daniels, A. L., Giddings, M. L., and Jordan, D., effect of heat on the antineuritic vitamin of milk, B., 33.
- Daniels, A. L., and Hejninian, L. M., growth of infants from the point of view of physical measurements and of nitrogen metabolism. II. Creatine. III. Uric acid, A., 638.
- Daniels, E. J., unsoundness in bronze castings, B., 422.
- Daniels, F. See Eyring, H., and Heidt, L. J.
- Daniels, F. H., and Riley Stoker Corporation, dual-feed pulverising apparatus, (P.), B., 2.
- apparatus for pulverising materials, (P.), B., 1050.
- Daniels, R. G., nitrocellulose, B., 623.
- Danielsen, E. See Wollhase, E.
- Danielson, L. S. See Norris, E. R.
- Danilov, S., and Venus-Danilova, E., isomerisation of hydroxy-aldehydes. II. Transformation of bromodicyclohexylacetaldehyde and dicyclohexylglycolaldehyde, A., 342.
- Danilov, S., Venus-Danilova, E., and Schantarovitch, P., isomerisation of hydroxy-aldehydes. III. Transformation of dextrose into a ketose (*laevulose*), A., 1411.
- Danilov, V., virial law in the relativistic gas theory, A., 1244.
- Daniltschenko, P. T., magnesium mercurides, A., 1137.
- Dann, A. T., dinitration of *m*-dichlorobenzene, A., 79.
- Danneel, H., and Fröhlich, K. W., tricalcium phosphate and water, A., 683.
- preparation of pure calcium phosphate, A., 1137.
- behaviour of tricalcium phosphate in cultivated soils, B., 961.
- Danneel, H., and Stoltzenberg, H., compressibility of ethylene, A., 146.
- Danneel, R. See Hüchel, W.
- Dannenbergh, H., yeast fermentation; validity of the Arndt-Schulz rule, A., 1620.
- Dannenburg, F., coagulation of quartz and bolus suspensions by gelatin, carrageen, and electrolytes, A., 1368.
- Dannmeyer, F. See Noel, L. von.
- D'Ans, J., and Löffler, J., metallic oxides and sodium hydroxide, A., 1005.
- system sodium oxide-silica-zirconium dioxide, A., 1122.
- Dantinne, R., and Molle, A., photo-electric effect with benzene and its derivatives, A., 398.
- Dantsizen, C. See Brit. Thomson-Houston Co., Ltd.
- Darby, G. M. See Dorr, J. V. N.
- Darby, H. H., growth acceleration in protozoa and yeast, A., 1318.
- Darby, W. J. See Major & Co., Ltd.
- Darco Sales Corporation. See Mahler, P.
- Dardin, F. See Nesselmann, K.
- Darley, M. M. See De Long, D. M.
- Darling, E. R., and Cornstalk Products Co., Inc., manufacture of non-fibrous cellulose flour, (P.), B., 708.
- Darling, E. R. See also Euromerican Cellulose Products Corp.
- Darling, S. F. See Kohler, E. P., and Späth, E.
- Darmois, E., influence of boric acid and borates on the rotatory power of tartaric acid, A., 399.
- influence of boric acid on the rotatory power of malic and tartaric acids. III. Complex borotartrates, A., 854.
- salt effect and rotatory power, A., 1094.
- Darmois, E., and Martin, J., influence of alkali molybdates on the rotatory power of dextrose, A., 399.
- Darrall, L. B. See Bingham, E. C.
- Darrin, M. See Munger, H. P.
- Darsey, V. M. See Green, M.
- Dartmoor China Clay Co., Ltd. See Parker, T. W.
- Darzens, G., cyclohexylethyl alcohol and some of its homologues, A., 84.

- Darzens, G., condensation of $\beta\beta$ -dimethylacrylyl chloride with benzene; synthesis of phenyl $\beta\beta$ -dimethylvinyl ketone, A., 90.
- α -phenylthylallylacetic acid and its cyclisation to a tetrahydronaphthaleno derivative; preparation of 1:4-dimethylnaphthalene, A., 1036.
- isomerisation of benzylvalerolactone to methyltetrahydronaphthalenecarboxylic acid, A., 1037.
- Darzens, G., Delaby, R., and Hiron, (Mlle.) J., preparation of quinoline by Skraup's reaction, A., 616.
- Darzens, G., and Lévy, A., β -phenylisobutyl alcohol and derivatives, A., 339.
- Das, A. K., and Wölcken, K., electron counting tube, A., 391.
- Das, P., multiple line spectrum of hydrogen, A., 123.
- Raman and resonance radiation, A., 1236.
- Das, R. S. See Aggarwal, J. S.
- Das, S., determination of available phosphoric acid in soils, B., 876.
- Das, S. C. See Chowdhury, J. K.
- Dasgupta, A. C. See Krishnan, K. S.
- Das-Gupta, P. N., use of phenolic acids in the detection, separation, and determination of metals. II. Colorimetric detection and determination of uranium. III. Gravimetric determination of uranium, A., 183.
- use of phenolic acids in the detection, separation, and determination of metals. IV. Colorimetric detection of titanium, A., 566.
- Dashiell, P. T., and U.G.I. Contracting Co., manufacture of carburetted water-gas, (P.), B., 273.
- D'Asseev, C., simultaneous preparation of alumina and pure carbon dioxide, (P.), B., 818.
- Dassen, R., cholæmia, urobilinæmia, and urobilinuria in various diseases of the liver, A., 808.
- Dassonville, M., scraper blade for detaching threads of cellulosic material from the winding-up drum of a spinning machine, (P.), B., 761, 985.
- machine for washing, dyeing, or similar treatment, (P.), B., 1025.
- collecting of artificial wool [from the spinning machine], (P.), B., 1147.
- Datta, S., and Roy, S. N., effect of pressure on absorption of spectral lines, A., 1490.
- Datta-Ray, B. K. See Sarkar, P. B.
- Daughenbaugh, P. J., and Allison, J. B., action of thionyl chloride on cholesterol and other alcohols, A., 211.
- Daugherty, J. F., infra-red absorption spectra of benzene and its halogen derivatives, A., 273.
- Daujat, S. See Prévost, C.
- D'Aunoy, R., and Zoeller, A., serum-calcium and -inorganic phosphorus following splenectomy, A., 493.
- Dauphinee, J. A., and Hunter, A., rate of liberation of arginine in tryptic digestion, A., 1317.
- Dauphinee, J. A. See also Hunter, A.
- Daur, R. See Küster, W.
- Daure, P., Raman effect in some liquefied gases, A., 14.
- Raman effect, A., 274.
- Daure, P. See also Bourguet, M.
- Dauvillier, A., visible electron diffraction, A., 129.
- integral microradiography, A., 883.
- application of diffraction of electrons to study of organic compounds; structure of cellulose, A., 1492.
- Davenport, H. A., block staining of nervous tissue with silver, A., 1465.
- Davenport, H. A., Davenport, H. K., and Ranson, S. W., muscular contraction. IV. Changes in phosphorus, nitrogen, and fat produced by tetanus toxin, A., 1060.
- Davenport, H. K. See Davenport, H. A.
- Davey, N., hot cement, B., 558.
- Davey, W. J. G., liquid purification [of gas] by soda ash solution, B., 227.
- nomography in gas analysis, B., 698.
- Davey, W. P., plasticity of solids, A., 145.
- Davey, W. P., Nitchie, C. C., and Fuller, M. L., determination of orientation of crystals in rolled metal from X-ray patterns taken by the monochromatic pin-hole method, A., 138.
- Davey, W. S., influence of rubber "resins" in zinc oxide accelerator mixings, B., 959.
- Davezies, M. B. See Tilloy, C.
- David. See Sisley, P.
- David, A., and Dip-It, Inc., liquid dyeing, colouring, and tinting composition, (P.), B., 983.
- David, A. D., and Universal Oil Products Co., apparatus for treating petroleum oils, (P.), B., 232.
- David, H. See Dolch, M.
- David, W. T., gaseous combustion, A., 546.
- David, W. T., and Davies, W., gaseous combustion, A., 166.
- temperature measurements in gaseous combustion, A., 865.
- luminosity in gaseous combustion, A., 865.
- Davidsohn, J., [toilet] soap bases, B., 24.
- testing for rancidity of fats, B., 871.
- testing of oils and fats for rancidity, B., 957*.
- Davidson, A. See Imperial Chem. Industries, Ltd.
- Davidson, A. W., solid additive compound of acetic acid and stannic chloride, A., 874.
- Davidson, A. W., and McAllister, W. H., solutions of salts in pure acetic acid. II. Solubilities of acetates. III. Zinc acetate and sodium zinc acetate, A., 406.
- Davidson, G. See Rippey, H. F.
- Davidson, G. A. See Halloran, R. A.
- Davidson, H. See Euler, H. von.
- Davidson, H. R., reproductive disturbances caused by feeding protein-deficient and calcium-deficient rations to breeding pigs, A., 808.
- Davidson, J. H. See Cauwood, J. D.
- Davidson, R. L. See Aborn, R. H.
- Davidson, T., manufacture of coloured glassware, (P.), B., 768.
- Davidson, T. M., separation of minerals and other substances, (P.), B., 41*.
- coal-carbonising retorts, etc., (P.), B., 891.
- Davidson, W. See Fraser, W.
- Davidson, W. M. See Gersdorff, W. A.
- Davies, A., apparatus for electromagnetic separation of minerals, (P.), B., 427.
- Davies, (Miss) A. C., Horton, F., and Blundell, (Miss) E., critical potentials for the excitation of soft X-rays from iron, A., 512.
- Davies, C. W. See Blayden, H. E., and Righellato, E. C.
- Davies, D. T. See Sinnatt, F. S.
- Davies, E. C. H., Taylor, K., and Riblett, E. W., rhythmic evaporation rings of orange II and fast-red B., A., 689.
- Davies, G. P. See Imperial Chem. Industries, Ltd.
- Davies, G. R. See Morgan, G. T.
- Davies, J. M. See Karrer, E.
- Davies, L., and Wright, L., protective value of some electro-deposited coatings, B., 425.
- Davies, P. A., relation of total nitrogen to regeneration in the willow, A., 1626.
- Davies, R. O. See Owen, B. J.
- Davies, T. L., and Walker, J. F., oxidation of *m*-xylorcinol [4:6-dihydroxy-*m*-xylene], A., 338.
- Davies, W. See David, W. T.
- Davies, W. C., Dixon, R. S., and Jones, W. J., syntheses by means of magnesium alkyl halides, A., 573.
- synthesis by means of magnesium amyl halides. II. Reduction of benzophenone, A., 1291.
- Davies, W. C. See also Dyke, W. J. C., Evans, D. P., and Jackson, I. K.
- Davies, W. J., and Evans, E. J., electrical conductivities of dilute sodium amalgams at various temperatures, A., 1525.
- Davies, W. S. See Peale, R.
- Dávila, J. P., catalytic hydrogenation of the pyrone nucleus, A., 217.
- Davis, A. B., and Keystone Watch Case Corporation, [resist for] photographic etching, (P.), B., 794.
- photographic resist and photographic etching, (P.), B., 794.
- Davis, A. B. See also Barber Asphalt Co.
- Davis, A. C., reactions in burning cement, B., 14.
- heat balance in rotary [cement] kilns, B., 190.
- crushing and preliminary grinding in Portland cement manufacture, B., 863.
- grinding of cement clinker, B., 990.
- Davis, A. H., and Evans, E. J., measurement of absorbing power of materials by the stationary wave method, A., 656.
- Davis, C. C. See Bierer, J. M.
- Davis, C. E., and Salisbury, H. M., influence of previous history of gelatin on the viscosity of gelatin solutions, A., 32.
- Davis, D. E., and Campbell, J. T., zeolite [water]-softening plant experiences, B., 884.
- Davis, D. G., and Bury, C. R., partial specific volume of potassium *n*-octoate in aqueous solution, A., 1516.
- Davis, D. S., vapour-pressure plotting paper, A., 1154.
- vapour pressure and [latent] heat of vaporisation of toluene, B., 500.

- Davis, F. W., and Allen, S. G., manufacture of steel, (P.), B., 63.
smelting of ferro-alloys in blast furnaces, (P.), B., 564.
- Davis, H. L. See Bancroft, W. D.
- Davis, H. S., and Crandall, G. S., rôle of the liquid stationary film in batch absorptions of gases. I. Absorptions involving no irreversible chemical reactions. II. Absorptions involving irreversible chemical reactions, A., 1512.
- Davis, H. S., and Quiggle, D., problems in the determination of unsaturated hydrocarbons in gases. II. Limitations in separations by sulphuric acid, B., 357.
- Davis, H. S., and Schuler, R., relative rates of absorption of gaseous olefines into sulphuric acid at 25°, A., 549.
- Davis, J. D., and Reynolds, D. A., benzene-pressure extraction of coal, B., 88.
- Davis, J. G., and Golding, J., the question of the identity of a bacterial growth-promoting factor with vitamin-B₁, A., 1479.
- Davis, J. W., and Allen, S. G., [heat exchanger for] liquefaction apparatus, (P.), B., 492.
- Davis, N. E. See Scott, W. W.
- Davis, N. R., and Associated Electrical Industries, Ltd., electrical induction furnace, (P.), B., 334, 824.
[drying out the lining of] electric induction furnaces, (P.), B., 335.
preparation of refractory linings or crucibles for coreless electrical induction furnaces, (P.), B., 419.
- Davis, N. R., Wood, G. A., and Associated Electrical Industries, Ltd., [refractory linings for] electrical induction furnaces, (P.), B., 995.
- Davis, P. R. See Bray, W. C.
- Davis, R. E., metabolism of tributyrin, A., 1313.
- Davis, R. E. See also Ingersoll, C. D.
- Davis, R. M. See Buck, J. S.
- Davis, T. L., explosive and solvent therefor, (P.), B., 930.
- Davis, T. L., and Batchelder, H. R., dissociation pressures of metal pyridine thiocyanates, A., 1522.
- Davis, T. L., and Snelling, W. O., compound of cobalt cyanate with a tertiary base, (P.), B., 988.
- Davis, W. C. See Brit. Cyanides Co., Ltd.
- Davis, W. N. See Halloran, R. A.
- Davis & Geck, Inc. See Watson, C. H.
- Davison, C. J., electron waves, A., 514.
- Davy, L. See Pöhle, F. A.
- Dawbarn, M. C. See Robertson, T. B.
- Dawes, B., absorption of fats and lipins in the plaice (*P. platessa*, L.), A., 1471.
- Dawidowicz, B. See Weil, S.
- Dawidowicz, J. See Chauvenet, E.
- Dawkins, A. E., knocking in internal-combustion engines and the use of anti-knock fuels, B., 175.
- Dawsey, L. H., photochemical dissociation of nitrogen peroxide, A., 1259.
- Dawsey, L. H. See also Urey, H. C.
- Dawson, H. H., and Ohio Chemicals Manufacturing Co., purification of ethylene [for anaesthesia], (P.), B., 705.
- Dawson, H. M., and Smith, J. E., acid and salt effects in catalysed reactions. XXII. Influence of inert salts on secondary dissociation of dibasic acids, A., 42.
acid and salt effects in catalysed reactions. XXIII. Catalytic activity of acid salts with reference to the catalytic effects produced by potassium hydrogen oxalate in the acetone-iodine reaction, A., 428.
- Dawson, H. M., and Spivey, E., acid and salt effects in catalysed reactions. XXIV. Catalytic effects produced by acetic acid and acetate buffers under conditions of effectively constant ionic environment, A., 1380.
- Dawson, T. R., comparison of white fillers for rubber, with special reference to pigmentation, B., 625.
- Dawson, W. T., and Garbade, F. A., idiosyncrasy to quinine, cinchonidine, and ethylhydrocupreine and other levorotatory alkaloids of the cinchona series; further chemical delimitation of the idiosyncrasy; alteration in sensitiveness, A., 1316.
- Day, A. A. See Stearn, A. E.
- Day, A. R., action of bromine on phenolphthalein; further evidence of the tautomeric character of phenolphthalein, A., 473.
- Day, A. R. See also Lowdermilk, F. R.
- Day, D. T., production of nicotine carbolates from crude shale oil, (P.), B., 1141.
- Day, E. M., and Bolliger, A., determination of blood-cholesterol, A., 1201.
- Day, J. N. E., trinitroethylbenzenes, A., 463.
- Day, L. A. See Branham, S. E.
- Daynes, H. A., Johnson, E. B., and Research Association of British Rubber Manufacturers, means for measuring the hardness and thickness of [non-rigid] objects, (P.), B., 692.
- Dayton, H. P. See Frolich, P. K.
- De, P. K. See Pillai, T. R. N.
- De, S. C., hydrazides. III. Condensation of semicarbazide and thiosemicarbazide with phenanthraquinone and its derivatives and synthesis of triazines, A., 1186.
dyes derived from 2-aminothiazole-4:5-dicarboxylic acid, A., 1451.
oxidation. III. Behaviour of formyl-, acetyl-, and benzoyl-thiosemicarbazide towards lead oxide, A., 1451.
- De, S. C., and Dutt, D. N., hydrazides. IV. Condensation of diarylamino guanidines with phenanthraquinone and derivatives, A., 1440.
pyrazolone series; action of semi- and thiosemi-carbazides on ketonic esters. III., A., 1447.
- De, S. C., and Ghosh, T. N., heterocyclic compounds derived from 9-amino-10-hydroxyphenanthrene, A., 1048.
- Deacon, B. R., effect of temperature on the stability of copper colloidal solutions, A., 692.
- Dean, H. P. See Imperial Chem. Industries, Ltd.
- Dean, J. N. See Smith, W. S.
- Dean, P. M., and Berchet, G., action of sodium on organic halides in liquid ammonia, A., 1172.
- Dean, R. I. K. See Brit. Celanese, Ltd.
- Dean, R. S. See Standard Telephones & Cables, Ltd.
- Dean, W. A., physical properties of the iron-nickel-chromium system, B., 772.
- Deansley, R., corpora lutea of mouse with special reference to fat accumulation during oestrous cycle, A., 1203.
- Dearborn, F. E., physical and chemical properties of commercial arsenical insecticides. I. Manganese arsenate, B., 961.
- Dearborn, R. J. See Wilson, R. E.
- Deb, S. C., spectrum of bromine in different stages of ionisation, A., 651.
- Deb, S. C., and Dutt, A. K., spectrum of inert gases in their second stage of ionisation, A., 1075.
- De Bacco, F., formation and volumetric determination of potassium thiosulphate in the mother-liquors of potassium metabisulphite, B., 611.
- De Balsac, H. See Deforge, A., and Labbe, H.
- De Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
- Debauche, H., production of fuel for industrial and domestic purposes, (P.), B., 314*.
- De Béthune, G. S. P., mixer, (P.), B., 2.
- De Bie, P. B., manufacture of macadam and gravel roads, (P.), B., 192.
- Debińska, Z., structure of thin layers of metals, A., 670.
- De Boer, J. H., and Broos, J., preparation of pure hafnium salts, A., 438.
- De Boer, J. H., Broos, J., and Emmens, H., preparation of alkali metals from their compounds by reduction with zirconium, A., 1136.
- De Boer, J. H., and Emmens, H., increase of rotation of tartaric acid produced by zirconium and hafnium in alkaline solution, A., 1516.
- De Boer, J. H., and Fast, J. D., preparation of pure metals of the titanium group by thermal decomposition of their iodides. II. Zirconium. III. Hafnium, A., 437.
- De Boer, J. H., and Naamlouze Vennootschap Philips' Gloeilampenfabrieken, converting hafnium and zirconium salts, (P.), B., 905*.
- De Boer, J. H. See also Arkel, A. E. van.
- De Bonis, G. See Marino, S.
- Debono, H. See Marcelet, H.
- De Bony de Lavergne, R. See Turpain, A.
- De Broglie, M., employment for spectrography of the extreme ultra-violet of gratings at grazing incidence, A., 265.
- De Brouckère, L., adsorption of ferric chloride by crystallised barium sulphate, A., 152, 407.
adsorption of iodine by barium sulphate, A., 850.
- De Brouwer, S., *omega*-trifluoro-*o*-toluic acid and *omega*-trifluoro-6-nitro-*m*-cresol, A., 1287.
- De Bruin, T. L., nuclear moment of bromine, A., 510.
structure of the spectrum of ionised argon (A II), A., 650.
spark spectrum of argon. III., A., 651.

- De Bruin, *T. L.* See also Bakker, *C. J.*, Humphreys, *C. J.*, Kiess, *C. C.*, and Meggers, *W. F.*
- Debye, *P.*, X-ray interference bands and atomic size, *A.*, 843.
interference measurements with single molecules, *A.*, 977.
interferometric determination of the structure of individual molecules, *A.*, 1350.
- Debye, *P.* [with Bewilogua, *L.*, and Ehrhardt, *F.*], X-ray interferences with isomeric molecules, *A.*, 400.
- Debye, *P.*, and Menke, *H.*, determination of the inner structure of liquids by means of X-rays, *A.*, 1350.
- Decade, *J.*, urinary bile pigment, *A.*, 633.
- De Carli, *F.*, viscosity isotherms of binary mixtures. III. System nitrobenzene-stannic chloride, *A.*, 26.
viscosity isotherms of binary mixtures. IV. System benzaldehyde-sulphur monochloride. V. Nitrobenzene-stannic bromide, *A.*, 284.
- De Caro, *L.*, regulating power of the principal constituents of muscle-juice, *A.*, 802.
- De Caro, *L.*, and Laporta, *M.*, surface tension of protein solutions, *A.*, 287.
- De Carvalho, *A.*, cardiac hormone in the tortoise, *A.*, 1220.
uranium in mineral waters; ratio to uranium, *A.*, 1155.
- De Castro, *U.*, determination of direct and indirect blood-bilirubin, *A.*, 1200.
- De Cew, *J. A.*, and Process Engineers, Inc., sizing of paper pulp, (*P.*), *B.*, 859.
- Dechamps, *G.*, pyrogenic decomposition of betaine under reduced pressure in the presence of calcium oxide, *A.*, 585.
- Déchène, *G.* See Reboul, *G.*
- Dechering, *F.* See Louwes, *S. L.*
- De Christiani, *H. V.*, recovery of volatile aromatic substances produced in the roasting of coffee, cocoa, etc., (*P.*), *B.*, 347.
- Deck, *E. M.* See Brown, *J. B.*
- Decker, *A. C.*, chlorinated copperas in the treatment of soft, highly coloured water, *B.*, 488.
- Decker, *H.*, en-onium conjugation as the cause of abnormal reactions, *A.*, 1191.
- Deckert, *G. W.* See Kallam, *F. L.*
- Deckert, *W. A.* See Hartung, *W. H.*, and Munch, *J. C.*
- De Clerck, *J.*, titrimetric determination of carbon dioxide in beer, *B.*, 737.
- Declercq, *J.* See Lievin, *O.*
- Décombe, *J.*, conversion of β -ketonic esters into β -amino-esters, *A.*, 328.
- Décombe, *L.*, Melde's experiment and Sommerfeld's conditions, *A.*, 132.
undulatory theory of quantum phenomena, *A.*, 976.
- De Coninck, *P.*, determination of p_H of soils by the quinhydrone electrode, *B.*, 578.
- De'Conno, *E.*, and Finelli, *L.*, constitution of rice-husk fat, *B.*, 382.
fractional saponification of fatty substances. I., *B.*, 466.
cholesterol of buffalo butter, *B.*, 619.
- De Coquet, *C.*, colorimetric micro-determination of glycerol in wine, *B.*, 31.
- De Coriolis, *E. G.*, and Cowan, *R. J.*, effect of atmospheres on the heat treatment of metals, *B.*, 105.
- Dede, *L.*, and Hessler, *W.*, compounds of mercury and of bismuth with 8-hydroxyquinoline, *A.*, 719.
- Dědek, *J.*, course of the first carbonatation [of beet juices]; solutions of sugar and lime, *B.*, 1125.
- Dědek, *J.*, and Dolak, *F.*, adsorption by insoluble calcium salts in the carbonatation of beet juice, *B.*, 925.
- De Diesbach, *H.*, Gubser, *P.*, and Lempen, *H.*, derivatives of hydroxyaminomethylanthraquinones and dihydroxydianthraquinonylthylenes. II., *A.*, 607.
- Dejulin, *I. M.* See Vinogradov, *A. P.*
- De Donder, *T.*, affinity. I. and II., *A.*, 277, 853.
- Dedusenko, *L. S.*, action of sodium ethoxide on ethyl cyclohexane-2:3-dione-1:4-dicarboxylate, *A.*, 341.
- Deeds, *C. L.*, determining the water content of clays, *B.*, 461.
- De Eds, *F.* See Kahler, *H.*
- Deegan, *J. K.* See Hubbard, *R. S.*
- Deem, *J. W.*, control of ragwort and other weeds by spraying, *B.*, 834.
- Deering, *E. C.* See Powell, *A. R.*
- Deerr, *N.* See Haldane, *J. H.*
- Defay, *R.*, De Donder's chemical kinetics, and stable and metastable equilibria, *A.*, 420, 861.
- Defay, *R.*, thermodynamic study of surface tension, affinity, and rate of adsorption. I.—VII., *A.*, 686, 853, 1109, 1247.
- De Fazi, *R.*, and Monforte, *F.*, reaction of aldehydes. IV., *A.*, 604.
- De Fazi, *R.*, and Pirrone, *F.*, indones. X. New reactions of 3-phenyl-2-ethyl- and 3-phenyl-2-methyl-indone, *A.*, 779.
- De Ferranti, *S. Z.*, and Ferranti, Ltd., protection of metals [from amalgamation with mercury], (*P.*), *B.*, 427*.
- De Finály, *I.*, and Koch, *S.*, fülöppite, a new Hungarian mineral of the plagioclase-senecioite group, *A.*, 189.
- De Florez, *L.*, oil-heating furnace, (*P.*), *B.*, 589.
method and apparatus for cracking oil, (*P.*), *B.*, 854.
- De Forest, *L.* See Brit. Talking Pictures, Ltd.
- Deforge, *A.*, Mahew, *J.*, and De Balsac, *H.*, Madagascar barks containing tannins, *B.*, 959.
- Defren, *G.*, treatment of cacao beans, (*P.*), *B.*, 792.
- De Frenc, *J.*, decorating [tinplate] metal [with bronzing preparation], (*P.*), *B.*, 427.
- De Fries, *W.*, furnace and its operation, (*P.*), *B.*, 397.
- De Ganahl, *C.* See Robinson, *T. W. S.*
- Degg, *E. P.* See Hind, *S. R.*
- Degiorgi, *H.* See Roffo, *A. H.*
- De Goey, *H. J. A.*, and Brender à Brandis, *G. A.*, evaluation of gas coal, *B.*, 225.
- Degos, *R.* See Loeper, *M.*
- De Graaff, *J.*, simple water-jet air pump, *A.*, 884.
determination of sugar content of condensed milk, *B.*, 683.
- De Graeve, *P.* See Fosse, *R.*
- De Groot, *W.*, concentration of positive ions in the mercury-neon low-voltage arc, *A.*, 515.
- De Gruyter, *J.* See Smits, *A.*
- Degtjarev, *W. T.*, determining soil organic matter by means of hydrogen peroxide and chromic acid, *B.*, 578.
- De Haan, *E. F.* See Kruyt, *H. R.*
- De Haas, *G.*, new reaction for codeine and dionine [ethylmorphine], *A.*, 937.
- De Haas, *W. J.*, and Alphen, *P. M. van*, testing of monocrystalline wires, *A.*, 670.
- De Haas, *W. J.*, Aubel, *E. van*, and Voogd, *J.*, superconductivity of alloys, *A.*, 676.
- De Haas, *W. J.*, and Voogd, *J.*, disturbance of the superconductance of the compound Bi_2Te_3 and of the alloys Sn-Bi and Sn-Cd by magnetic fields, *A.*, 142.
influence of magnetic fields on superconductors, *A.*, 676.
- De Haas, *W. J.* See also Becquerel, *J.*, Krupkowski, *A.*, Obreimov, *J. V.*, and Schubnikov, *L.*
- Dehaese, *E. D.*, solder for aluminium and its alloys, (*P.*), *B.*, 151.
- Dehlinger, *U.*, introduction of gas atoms into crystal lattices, *A.*, 138.
atomistic principles of recrystallisation [of metals], *A.*, 1506.
- Dehlinger, *U.*, and Graf, *L.*, transformation of solid metallic phases. I. The tetragonal gold-copper alloy, AuCu, *A.*, 1360.
- Dehls, *J. C.* See Gump, *W.*
- Dehn, *W. M.* See Evans, *T. W.*
- Dehnel, *E.* See I. G. Farbenind. A.-G.
- Dehnicke, *J.*, influence of black mould on the production of amylase in green malt, *B.*, 163.
determination of p_H values in provincial distilleries, *B.*, 636.
- Dehottay, *H.*, freezing soils by means of carbonic acid, (*P.*), *B.*, 785.
- Dehydrators, Inc. See Cage, *J. M.*
- Deines, *O. von*, and Elstner, *G.*, constitution of hyposulphurous acid, *A.*, 1262.
- Deinum, *H. W.* See Smits, *A.*
- Déjardin, *G.*, second spectrum of xenon in the spectral interval 9000—6000 Å., *A.*, 511.
spectrum of xenon in the far ultra-violet (2700—1850 Å.), *A.*, 1489.
- Déjardin, *G.*, and Ricard, *R.*, structure of the first spark spectrum of mercury (Hg I), *A.*, 389.
first spark spectrum of mercury (Hg II), *A.*, 511.
- De Jong, *A. W. K.*, Erlenmeyer's trichloric cinnamic acid and the double compounds of *cis*- and *trans*-cinnamic acids, *A.*, 86.
trimorphism of *cis*-cinnamic acid, *A.*, 471.
preparation of ethereal oils, *B.*, 301.
extraction of gutta-percha leaf, *B.*, 1039.
- De Jong, *H. G. B.*, Dekker, *W. A. L.*, and Gwan, *O. S.*, complex coacervation. III. Complex coacervates in physiological media. IV. Behaviour of complex coacervates in the electric field, *A.*, 1118.

- De Jong, *H. G. B.*, and De Vries, *N. F.*, hydrophilic sol of very low viscosity: the sol of the sodium salt of the nucleic acid of yeast, A., 1113.
- De Jong, *H. G. B.*, and Gwan, *O. S.*, lyophilic colloids. VIII. Thymus-nucleic acid sol, A., 855.
- viscosity of mixtures of hydrophilic sols, A., 993.
- complex coacervation. II. Serum-albumin and gum arabic, A., 994.
- De Jong, *H. G. B.*, and Kruyt, *H. R.*, coacervation (partial miscibility in colloid systems), A., 158.
- De Jong, *H. L. B.*, and Klaar, *W. J.*, colloid chemistry of gluten. I. and II., B., 31, 787.
- De Jong, *M.*, and Wibaut, *J. P.*, catalytic reduction of pyrroles to pyrrolidines, A., 479.
- De Jong, *W. F.*, goethite, stainerite, diaspore, and heterogenite, A., 983.
- crystal structure of sodium uranyl acetate, A., 1351.
- crystal structure of germanite, A., 1352.
- De Jongh, *S. E.*, simple calculation of sugar content as determined by the method of Hagedorn and Jensen, A., 360.
- De Jongh, *S. E.* See also Borchardt, *E.*, and Dingemanse, *E.*
- Dekker, *K. D.*, temperature coefficient in the polarisation of raw cane sugars, B., 634.
- Dekker, *W. A. L.* See De Jong, *H. G. B.*
- Dekker, *M.* See Bruylants, *P.*
- De Kolosovski, *N.*, inaccessibility of the absolute zero, A., 847.
- deviations from the law of Neumann, Joule, and Kopp. I., A., 861.
- De Kolosovski, *N.*, and Skulskaja, *I. M.*, deviations from the law of Neumann, Joule, and Kopp and the apparent mol. heat of water in solid compounds, A., 544.
- deviations from the law of Neumann, Joule, and Kopp, A., 861.
- De Korff, *G.*, and Jakova-Merturi, *G.*, metallurgical charcoal, (P.), B., 176.
- De la Bruère, *A.*, measurement of colour of tanning extracts. II. Photocolorimeter method, B., 831.
- effect of the particle size of kaolin and P.H.A.S. on the filtration of tannin solutions by the contact method, B., 831.
- diffusion of oakwood and chestnut extracts into a gelatin jelly, B., 831.
- diffusion of oak and chestnut extract into gelatin jellies, B., 1081.
- Delaby, *R.*, and Charonnat, *R.*, synthesis of dioxypyrimidone [a-acetyl- β -dimethyloxamyl- β -phenyl- α -methylhydrazine], A., 329.
- Delaby, *R.*, and Dubois, *P. A.*, preparation of allyl alcohol by means of formic esters of glycerol, A., 1159.
- Delaby, *R.* See also Charonnat, *R.*, and Darzens, *G.*
- De Landsberg, *V.* See Walle, *H. van de.*
- De Lange, *A.* See Lindemann, *H.*
- De Langeron, *N. A.* See Huybrechts, *M.*
- Delano Land Co. See Goodwin, *N.*
- Delaplace, *R.*, disappearance of hydrogen in discharge tubes, A., 45.
- De Lapparent, *J.*, mineralogical and chemical behaviour of the alteration products formed from the gneiss of the central French massif before the establishment of the oligocene sedimentary deposits, A., 732.
- titanium content of bauxites, A., 886.
- De Lapparent, *J.* See also Hocart, *R.*
- De La Rivière, *R. D.*, and Kossowitch, *N.*, blood-groups, A., 1202.
- De la Roche, *B.*, ultimate lines in the spectra of elements in the gaseous state, A., 126.
- spectrographic method of determining carbon dioxide in mixtures with air, A., 1145.
- De la Rochette, *C.*, acetylene generator [for use with internal-combustion engines], (P.), B., 650.
- De la Roza, *J. J.*, manufacture of cellulose [from sugar-cane fibre], (P.), B., 138.
- Delauney, *P.*, biochemical synthesis of β -5-iodosalicylglucoside, A., 1216.
- Delauney, *P.* See also Fleury, *P.*
- Delaval, *H.* See Guittonneau, *G.*
- De Laval Separator Co. See Cleary, *W. D.*, Forsberg, *E. A.*, Lindgren, *H. O.*, McBerly, *F. H.*, and Petty, *E.*
- Delaville, *M.*, colorimetric determination of small quantities of cobalt and potassium, A., 1393.
- Delaware, Lackawanna, & Western Coal Co., Farley, *E.*, and Landon, *N. R.*, treatment of coal [especially anthracite], (P.), B., 803.
- Delaware, Lackawanna, & Western Coal Co., and Landon, *N. R.*, treatment of coal [especially anthracite], (P.), B., 803.
- Delaware, Lackawanna, & Western Coal Co. See also Mork, *H. S.*
- De Lawder, *A. M.* See Geiling, *E. M. K.*, and Jensen, *H.*
- Delbag-Entstaubung Ges.m.b.H., manufacture of filter material with a rough surface for air and gas filters, (P.), B., 270.
- Delbrück, *M.*, quantitative theory of homopolar binding, A., 842.
- Del Campo, *A.*, Rancaño, *A.*, and Subero, *G.*, pH of the colour change of some vegetable indicators, A., 50.
- De Leeuw, *H.*, spray-drying of latex in Sumatra, B., 384.
- Delépine, *M.*, action of potassium oxalate on potassium rhodochloride, A., 50.
- preparation of dichloroacetic acid, A., 63.
- Delépine, *M.*, Reesman, *J.*, and Suau, *E.*, action of organic acids on *d*-pinene, A., 1591.
- Del Fresno, *O.*, volume change during formation of binary compounds, A., 683.
- Del Fresno, *C.*, and Valdés, *L.*, potentiometric determinations with ferricyanide in alkaline solution. II. Arsenic, antimony, tin, and thallium, A., 51.
- Delhougne, *F.*, enzyme content of blood. I. Normal, A., 800.
- production of lactic acid in the stomach, A., 1204.
- De Lignae, *J. H.*, distillation of heavy liquid hydrocarbons, (P.), B., 702.
- De Lissner, *H. M.*, Fritzsche's reagent [for alkaloids], A., 796.
- Dell' Acqua, *G.* See Barrenscheen, *H. K.*
- Dellow, *H. A. N.* See Imperial Chem. Industries, Ltd.
- Del Mundo, *S.*, improving the appearance of buntal fibre or of articles made therefrom, B., 101.
- occlusion of lead and copper in non-ferrous alloys by metastannic and metantimonic acids, B., 1157.
- De Long, *D. M.*, Reid, *W. J., jun.*, and Darley, *M. M.*, the plant as a factor in the action of Bordeaux mixture as an insecticide, B., 680.
- toxicity of copper to the potato leaf hopper, B., 680.
- De Loureiro, *J. A.*, standardisation of turbidity values in nephelometric determinations, A., 1391.
- Deltex Co. See Chapin, *E. S.*
- Del Turco, *C. R.* See Tecca, *C.*
- Deluchat, aromatic glycols, A., 471.
- Deluchat. See also Lespiau.
- Delvaux, *M.* See "Mateco" Soc. pour la Construction et l'Exploit. du Matériel Colonial au Gaz Pauvre, Soc. Anon.
- Delwaulle, (*Mlle.*). See Pélabon, *H.*
- Dely, *J. G.*, and Atmospheric Nitrogen Corporation [removal of carbon monoxide and dioxide from gas mixtures for use in] synthetic ammonia process, (P.), B., 509.
- Dely, *J. G.*, and Chemical Research & Designing Corporation, copper coating [of metal objects], (P.), B., 64.
- Demag Akt.-Ges., carbonisation of bituminous materials, (P.), B., 804.
- De Malleman, *R.*, atomic frequencies in solids, A., 9.
- molecular theory and the calculation of natural rotatory power, A., 981.
- De Marcus, *L.* See Leopold, *F. B.*
- Demassieux, (*Mme.*) *N.*, complex lead salts, A., 164.
- Dembrowski, *K.* See Jabczyński, *K.*
- Démény, *L.*, arylsulphonalkylamides, A., 81.
- Demeter, *K. J.*, bacteriological control of bottled milk pasteurised by the holding method, B., 119.
- Deming, *W. E.*, and Shupe, (*Miss*) *L. E.*, comparison of the Kleeman and Beattie-Bridgeman equations of state for gas mixtures, A., 535.
- constants of the Beattie-Bridgeman equation of state with Bartlett's *P-V-T* data on nitrogen, A., 679.
- Deming, *W. E.* See also Lamar, *E. S.*
- De Mira, *F.*, and Fontes, *J.*, hormone of the suprarenal cortex, A., 117.
- Demjanov, *N. J.*, electrolysis of solutions of alkali salts of polymethylenecarboxylic acids, A., 471.
- Demjanov, *N. J.*, and Dojarenko, *M. N.*, cyclopropene and some of its derivatives, A., 331.
- Demole, *V.*, and Christ, *A.*, action of vitamin-D on a parathyroid-ectomised dog (treatment of tetania parathyreoprivia), A., 242.
- Demole, *V.*, and Fromherz, *K.*, serum-calcium and organ calcification under the action of irradiated ergosterol, A., 257.
- Demole, *V.* See also Euler, *H. von.*
- Demolon, *A.*, and Barbier, *G.*, fixation and mobilisation of phosphoric oxide in clays, B., 254.

- Demolon, A., and Barbier, G., determination of the phosphoric acid requirement of soils, B., 434.
- De Mongeot, L. B., utilisation of rice husks, B., 528.
- De Montby, H. See Barthélemy, P.
- Demouglin, manufacture of nitrocellulose of very high nitrogen content for B.F.P. powder, B., 794.
- nitration of wood and other forms of cellulose, B., 795.
- Demoulin, C., manufacture of charcoal fuel briquettes, (P.), B., 891.
- Dempster, A. J., reflexion of protons from calcite, A., 129.
- reflexion of positive ions by crystals, A., 835.
- De Navrotsky, N., distillation and complete recovery of alcohol produced in baking ovens, (P.), B., 36.
- Dénes, A., preparation of crystalline methæmoglobin, A., 1199.
- Dengler, J., process and apparatus for manufacturing pottery or ceramic articles, (P.), B., 374.
- Den Hertog, H. J., jun., and Overhoff, J. nitration of pyridine; preparation of 2-nitropyridine, A., 925.
- De Niederhäusern, G., and Durand & Huguenin Société Anonyme, production of fast dyeings and printings with vat dyes, (P.), B., 321*.
- Denigès, G., sodium tungstate as microchemical reagent for barium, A., 53.
- colorimetric determination of small quantities of iron [in blood], A., 491.
- microscopical identification of barbituric acid drugs, A., 788.
- Denina, E., lead accumulators, B., 515.
- Denison, I. A., chemical composition of colloidal material isolated from the horizons of various soil profiles, B., 523.
- Denivelle, L. See Battegay, M.
- Denman, W. L., and Bartow, E., boiler reactions at high temperatures, B., 221.
- Dennemark, A., wood tar for making axle grease, B., 496.
- Denner, H. See Seholefeld, F.
- Dennes, N., and Associated Electrical Industries, Ltd. (Metropolitan-Vickers Electrical Co., Ltd.), thermostatic controlling means for electrically heated ovens, etc., (P.), B., 335, 916.
- Dennett, J. H., soils at Cameron's Highlands, B., 387.
- ash of Nipa [palm] juice and its preservation, using alcohol and heat as sterilising agents and copper sulphate and lime as preservatives, B., 436.
- Dennett, J. H. See also Milsum, J. N.
- Dennington, S. H., imparting (a) a black or (b) a stone colour to leather polish, (P.), B., 156.
- Dennis, G. P. See Young, A. E.
- Dennis, L. M., and Hulse, R. E., germanium. XXXV. Germanium monoxide; germanium monosulphide, A., 1387.
- Dennis, L. M., and Patnode, W. I., germanium. XXXIV. Germanium trimethyl bromide, A., 1171.
- Dennis, L. M., and Shelton, R. S., apparatus for determination of m. p., A., 1265.
- Dennis, L. M., and Skow, N. A., germanium. XXIX. Germanium monohydride, A., 1007.
- Dennison, M. See Korenchevsky, V.
- Dennison Manufacturing Co. See Alden, G. R.
- Denny, E. H., Marshall, K. L., Fieldner, A. C., Emery, A. H., Yant, W. P., and Selvig, W. A., rock-strata gases of the Cripple Creek district, Colo., and their effect on mining, A., 1399.
- Denny, F. E., influence of thiourea on the development of apical buds and the number of shoots from potato buds, B., 75.
- Denny, H. W., and Sun-Maid Raisin Growers of California, raisin syrup and its manufacture, (P.), B., 1085.
- Denny, J. J., gold milling in Canada, B., 424.
- Densch, manual trials with potassium ammonium superphosphate on root crops, B., 785.
- influence of phosphoric acid on the cropping power of seed potatoes, B., 923.
- Densch, and Steinfatt, determination of the lime requirement of soils, B., 631.
- "lime antagonism" of lupins, B., 633.
- Denson, W. P. See Owen, W. L.
- Dent, F. J., use of [coal-tar] cresote in the manufacture of carburated water-gas, B., 44.
- Dental Manufacturing Co., Ltd., and Newbald, L. H., [dental] pestles and mortars, (P.), B., 640.
- Deodhar, D. B., new bands in the secondary spectrum of hydrogen, A., 263.
- Deodhar, D. B., and Dutt, S. K., spectrum of oxygen under different conditions of excitation, A., 1.
- Deodhar, G. B., fine structure of K-absorption limit of silicon oxide, A., 833.
- X-ray spectra and chemical combination, A., 1228.
- De Ong, E. R., comparative insecticidal value of different species of *Derris*, B., 962.
- selection of petroleum oil for spraying purposes, B., 976.
- De Paolini, I., colour reaction of oximes, A., 211.
- De Paolini, I., and Longo, G., dioximes. LXIII., A., 898.
- De Paolini, I., and Castiglioni, A., dioximes. LVIII., A., 226.
- De Paolini, I., and Longo, G., dioximes. LXIII., A., 898.
- De Paolini, I., and Walde, G., complex salts of α -amino- α -oximino-acetic acid and β -amino- β -oximinopropionic acid, A., 897.
- De Paredes, P. G. See Moles, E.
- Depew, H. A., influence of pigments on some physical properties of unvulcanised rubber, B., 69.
- De Ploëg, S. See Soc. Anon. Electrochim. Phœbus.
- Deppeler, J. H., [iron] thermit mixture, (P.), B., 719.
- Derby, I. H., and Reilly, P. C., pickling of iron and steel, (P.), B., 868.
- Dérér, L., and Steffanutti, P., serum-protein in histamine shock, A., 1214.
- De Roy-Pailhade, use of sulphur in biological chemistry, A., 249.
- philothione as hydrogenase, A., 1215.
- De Reytere, R., drying kiln, (P.), B., 171*.
- Derfinger, K. See Balthasar, K.
- Dering, H. O., manufacture of crystalline materials, (P.), B., 418.
- Deripe, F. van, Green, L. W., and Schoetzwor, R. E., stability of anæsthetic ether in containers of various types, B., 216.
- Derksen, J. C., Katz, J. R., Hess, K., and Trogus, C., structure of celluloid and gelatinising agents of nitrocellulose as swelling agents. I. Change in optical anisotropy of camphor-celluloid containing varying amounts of camphor on stretching, B., 984.
- Derksen, J. C. See also Katz, J. R.
- Derlon, H. See Curtius, T.
- De Ros, D., preservation of natural and artificial building materials, (P.), B., 990.
- Derr, R. B. See Barnitt, J. B.
- Derrett-Smith, D. A. See Butterworth, E.
- Derrien, E., and Benoit, C., porphyrins of salivary calculi, A., 240.
- urine and organs in acute porphyria, A., 241.
- Derrien, E., and Cristol, P., zinc-porphyrinuria, A., 1059.
- Derry, G. C. See Sturtevant Co., B. F.
- Dersch, F. See Auwers, K. von.
- De Rudder, F., and Biedermann, H., pyrolysis of methane, A., 887.
- dissociation of methane at high temperatures and various pressures, A., 1268.
- Derviz, G. V., colorimetric determination of lactic acid, A., 1072.
- Deryagin, B. V., and Khavanov, I. M., viscous liquids, A., 146.
- De Sacy, (Mlle.) G. S. See Alquier, J.
- Desai, B. N. See Patel, A. M.
- Desai, R. D. See Naik, K. G.
- De Santos, I., and West, A. P., thiochaulmoogra compounds; thiochaulmoogramide, anilide, and toluidides. I., A., 598.
- naphthyl esters and naphthylamides of chaulmoogric acid, A., 1579.
- resins in the seed coats of Philippine chaulmoogra seeds (*Hydnocarpus alcala*), B., 110.
- Desbleds, B., eliminating personal factors from the measurement of colour and gloss [of paper], B., 759.
- Descamps, R., methods for measuring rotatory power in the ultra-violet region, A., 1095.
- Deschamps, J. J., [boiler] furnaces, (P.), B., 744.
- Deseniss, M., and Nielsen, A., chlorination of rubber, (P.), B., 730.
- Deseö, D. von, refractometric investigation of serum-protein. I. Determination of total protein content from the refractive index. II. Robertson's method for the determination of protein, A., 357.
- De Seze, S. See Loeper, M.
- Deshpande, D. D., determination of pentoses and pentosans by different methods, A., 1052.
- Deshusses, J. See Briner, E.
- De Silva, F. A., and Carlisle, C. G., direct production of steel or steel alloys from titaniferous ores and iron sands, (P.), B., 290*.
- Désirant, Y., ethyl difluoroacetoacetate, A., 739.
- Deslandres, H., [radioactivity of lead exposed to solar radiation], A., 517.

- Deslandres, *H.*, cause of the change in intensity of the lines and bands in atomic and molecular spectra, *A.*, 653.
abnormal lines and series in atomic spectra, *A.*, 971, 1332.
ultimate rays of the alkali and alkaline-earth elements, *A.*, 1075.
- Desmaroux, determination of residual solvent in B powders, *B.*, 795.
- Desmaroux, and Mathieu, *M.*, solutions of diphenylcarbamide in nitrocellulose, *A.*, 539.
X-ray study of the gelatinisation of cellulose nitrate, *A.*, 1519.
- Desmarquest, *L.*, manufacture of cellular building materials, (*P.*), *B.*, 771*.
- De Smedt, *J.*, Keesom, *W. H.*, and Mooy, *H. H.*, crystal structure of neon, *A.*, 671.
- Desmurs, *G.*, examples of fluorescence applied to the qualitative analysis of tannins, *B.*, 433.
- D'Esopo, *L. M.* See Bruckman, *F. S.*
- De Sousa, *P.*, volcanic rocks of eastern Algarve (Portugal), *A.*, 1397.
- Desson, *G.* See Établ. *G. Desson & Cie.*
- De Stuhner, *E. C.*, manufacture of cellulose ester compositions, (*P.*), *B.*, 469.
sensitised coating and method of making and applying same and photographic plate or film produced thereby, (*P.*), *B.*, 794.
[dehydration of] pigments, (*P.*), *B.*, 827.
- Desvergnès, *L.*, Wolfenstein and Boeters' process for the preparation of picric acid from benzene, *B.*, 8.
- Detrick, *J. N.* See Frankforter, *C. J.*
- Detrick Co., *M. H.*, furnace wall construction, (*P.*), *B.*, 308.
furnace walls, (*P.*), *B.*, 591.
- De Turk, *E. E.* See Smith, *R. S.*
- Deubel, *A.* See Dorsch, *K. E.*
- Deubel, *F.*, steatite from the Münchberg gneiss area, *A.*, 732.
- Deubner, *A.*, sensitive method for comparing the resistance of electrolytes to high frequencies, *A.*, 164, 997.
- Deubner, *W.*, reflexion of X-rays at an artificially prepared laminated body, *A.*, 843.
- De Ugarte, *J. J.*, separation of iodine by the thiosulphate method, *B.*, 459.
- Deulofeu, *V.*, formation of *l*-threose, *A.*, 68.
camphoreins. I. Phenolcamphorein and its derivatives, *A.*, 783.
- Deulofeu, *V.* See also Zappi, *E. V.*
- Deurs, *J. A. S. van*, recovery of fats and oils, (*P.*), *B.*, 155.
- Deussen, *E.*, sterilisation in pharmaceutical practice, *B.*, 393.
toxicological aspect of the preservation of raspberry juice with hydrofluoric acid, *B.*, 964.
- Deuticke, *H. J.* See Embden, *G.*
- Deutsch, *D.*, phenomena in gels as properties of liquids showing viscosity anomalies, *A.*, 1369.
- Deutsch, *H.* See Herrmann, *W. O.*
- Deutsch, *W.*, nuclein metabolism. XX. Increase of liver-nucleotidase action, *A.*, 249.
- Deutseh, *W.*, and Laser, *R.*, nuclein metabolism. XIX. Behaviour of a nucleosidase from ox bone-marrow towards a fission product of thymus-nucleic acid, *A.*, 249.
- Deutseh, *W.*, and Rösler, *K.*, nuclein metabolism. XVIII. Nucleotidase content of individual organs of different animals, *A.*, 104.
- Deutsch, *Walther*, charging of small suspended particles in the corona discharge, *A.*, 659.
- Deutsch-Englische Quarzschmelze Ges.m.b.H., moulding of articles of fused quartz, (*P.*), *B.*, 1111.
- Deutsch-Englische Quarzschmelze Ges.m.b.H., and Elsässer, *C.*, shaping of fused amorphous quartz, (*P.*), *B.*, 190.
- Deutsche Bergin-Akt.-Ges. für Kohle- & Erdölchemie, continuous production of water-gas and hydrogen from gaseous hydrocarbons, (*P.*), *B.*, 92.
- Deutsche Bergin-Akt.-Ges. für Kohle- & Erdölchemie. See also Soc. Internat. des Combustibles Liquides.
- Deutsche Edelstahlwerke Akt.-Ges., manufacture of [cutting steel] alloys, (*P.*), *B.*, 868.
- Deutsche Erdöl A.-G. See Bömcke, *K.*
- Deutsche Gasglühlicht-Auer-Ges.m.b.H., electrolytic oxidation of cerous sulphate solutions, (*P.*), *B.*, 188.
rendering suitable for re-use sulphuric acid used for treatment of titanium ores containing chromium, (*P.*), *B.*, 323.
purification of impure titanium dioxide, (*P.*), *B.*, 419.
manufacture of white enamels [for sheet or cast metal], (*P.*), *B.*, 510.
- Deutsche Gasglühlicht-Auer-Ges.m.b.H., rendering paint water-proof, (*P.*), *B.*, 520.
continuous production of cold by the compression method, (*P.*), *B.*, 591.
preparation of pure zirconium sulphate from zirconium ores decomposed by sulphuric acid, (*P.*), *B.*, 612.
refrigerants for use in vacuum refrigerating machines, (*P.*), *B.*, 645.
refrigerating methods and apparatus, (*P.*), *B.*, 799.
- Deutsche Gasglühlicht-Auer-Ges.m.b.H., and Weidert, *F.*, production of glasses with changing colour effects, (*P.*), *B.*, 714.
- Deutsche Gasglühlicht-Auer-Ges.m.b.H. See also Specht, *N.*
- Deutsche Gesellschaft für Metallkunde, Corrosion Committee, corrosion tests with aluminium and duralumin in sea-water, *B.*, 62.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, bleaching of textiles by means of solutions yielding nascent oxygen, (*P.*), *B.*, 101.
filling for gas-masks, (*P.*), *B.*, 396.
cementation and hardening of iron, iron alloys, and steel, (*P.*), *B.*, 564.
preparation of *N*-substituted cyanoformylamides, (*P.*), *B.*, 706.
preparation of oxygen-evolving preparations suitable for use in respiratory apparatus, etc., (*P.*), *B.*, 765.
saponification of glycerides of fatty acids, (*P.*), *B.*, 997.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, Baum, *G.*, and Oesterreichische Chemische Werke G.m.b.H., obtaining hydrogen peroxide by distillation, (*P.*), *B.*, 818.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Bromig, *K.*, production of glutamic acid [in sugar factories], (*P.*), *B.*, 77.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Weiss, *L.*, production of pigments and turbidity agents, (*P.*), *B.*, 571.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler. See also Bromig, *K.*, and Kochendoerfer, *G.*
- Deutsche Hydrierwerke Akt.-Ges., "fixation" of perfumes, (*P.*), *B.*, 218.
motor fuel, (*P.*), *B.*, 314.
emulsification of substances of wax-like character, (*P.*), *B.*, 519.
fermentation of starch, sugar, or similar containing materials, (*P.*), *B.*, 636.
sulphonation of alcohols of high mol. wt., (*P.*), *B.*, 855.
- Deutsche Kabelwerke Akt.-Ges., preparation of magnet cores from a mixture of finely-divided iron and an insulating material, (*P.*), *B.*, 202.
- Deutsche Leuchtöhren-Ges.m.b.H. See Patent-Treuhand-Ges. f. elektr. Glühlampen m.b.H.
- Deutsche Luftfilter-Bauges.m.b.H., complete removal of dust from air and gases, (*P.*), *B.*, 170.
- Deutsche Luftfilter-Bauges.m.b.H., and Schrempp, *A.*, removal of dust from gases with moving filters, (*P.*), *B.*, 224.
- Deutsche Petroleum Akt.-Ges., Riesenfeld, *E. H.*, Bandte, *G.*, and Pflug, *H.*, working-up of oil chalks, etc., (*P.*), *B.*, 181.
- Deutsche Pyrotechnische Fabriken A.-G. See Minimax A.-G., and Thiecke, *J.*
- Deutsche Spiegelglas-Akt.-Ges., manufacture of [eye-protecting] glass, (*P.*), *B.*, 714.
- Deutsche Sprengstoff Akt.-Ges. and Mettegang, *H.*, safety sheaths for blasting cartridges, (*P.*), *B.*, 265.
- Deutsche Sprengstoff Akt.-Ges. See also Metallbank & Metallurg, Ges. A.-G.
- Deutsche Ton & Steinzeug-Werke A.-G., and Schneider, *P.*, manufacture of yellow glazes, (*P.*), *B.*, 714.
- Deutsche Wollenwaren-Manufaktur Akt.-Ges., preparing wool-containing fabrics for dyeing, (*P.*), *B.*, 859.
- Deutsche Zellstoff-Textilwerke Ges.m.b.H., and Leuchs, *K.*, manufacture of artificial silk, etc., from viscose, (*P.*), *B.*, 708.
- Deutschmann, *F.* See Hanke, *E.*
- Deutschmann, *W.* See Schottky, *W.*
- De Vane, *F. D.* See Gandrud, *B. W.*
- De Veer, *J. R. G.* See Meulen, *H. ter.*
- Development of Industries, Ltd., and Gavrilovitch, *V. A.*, treatment of tobacco, (*P.*), *B.*, 839.
- Deverall, *W. J.*, and Webb, *H. W.*, reaction between acid chlorides and nitrosylsulphuric acid, *A.*, 774.
- Devereux, *E. D.*, direct iodising of milk is possible, *B.*, 1167.
- Devereux, *W. C.*, manufacture application of "Y" and "R.R." alloys, *B.*, 1071.

- Devers, P. K. See General Electric Co.
- De Villiers, F. J., citrus by-products research: orange oil, B., 639.
extraction of orange oil, B., 1003.
- De Vilmorin, J., and Cazaubon, E., modification of the determination of reducing sugars, B., 211.
- Devine, J. M., determination of mol. wts. of non-volatile petroleum oils, B., 496.
- Devore, H. B., Pfund, A. H., and Cofman, V., action of light of different wave-lengths on cellulose nitrate, A., 46.
- De Vos, G., determination of coking power of coal, B., 1052.
- Devos, P., affining of sugars and use of a decolorising earth in sugar factories, B., 211.
- Devoto, G., dielectric constants of liquids. II. Temperature coefficient of the dielectric constant of water, A., 666.
dielectric constants of liquids. III. Aqueous solutions of some organic compounds, A., 1358.
- Devoto, G., and Guzzi, A., free energies of formation in fused salts. II. Halides of manganese, cobalt, and iron, A., 25.
free energy of formation in fused salts. III. Bismuth halides, A., 163.
- Devoto, G., and Stevenson, M., dielectric constants of liquids. I. Measuring apparatus, A., 729.
- Devrient, W. See Parfentjev, J. A.
- De Vries, N. F. See De Jong, H. G. B.
- De Vries, O., and Beumée-Nieuwland, N., plasticity determinations in crude rubber. VII. Relation between structure and plasticity of rubber prepared in different ways, B., 470.
- De Vries, O., and Riebl, R., tensile strength of Java plantation rubber, B., 470.
- De Vries, R. P., and Ludlum Steel Co., stable-surface alloy steel, (P.), B., 1158.
- De Vries, R. P. See also Armstrong, P. A. E.
- De Vries, T., sp. heat of pyrex glass from 25° to 175°, B., 767.
- Devuns, J. See Policard, A.
- Dewael, A., preparation of allyl alcohol and allyl chloride, A., 450.
propylene bromo-chlorides, A., 572.
- De Waele, A., plastic and pseudo-plastic flow, A., 418.
cholesterol in the earth-worm, A., 1308.
- De Waele, A., and Gestetner, Ltd., D., stencil sheet for use in duplicating, (P.), B., 280*.
production of stencil sheets for use in duplicating, (P.), B., 415*.
- Dewald, R. H. See Waterman, H. I.
- Dewar, J. S. See Lerch, W. B.
- Dewar, M. M. See Borgstrom, P.
- Dewey, B., and Crocker, E. C., rubber latex cement and its preparation, (P.), B., 1040.
- Dewey, B., and Taliaferro, T. L., drying apparatus, (P.), B., 398.
- Dewey, (Miss) J. M., intensity maxima in the continuous helium spectrum, A., 387.
- Dewey & Almy Chemical Co., and Stevens, D. M., manufacture of rubber, (P.), B., 384.
- Dewhurst, C. See Austin, T. D.
- De Witt, C. C., improved Bartell-Osterhof cell, A., 1550.
- Dews, H. C., effect of phosphorus on the strength of Admiralty gun-metal, B., 992.
- Dhar, J. M. See Chatterjee, A. C.
- Dhar, N. R., metabolism and deficiency diseases and their treatments by light and iron preparations, A., 241.
influence of ageing on inorganic hydrophilic colloids, cells, and colloids in the animal body, A., 693.
coagulation of pure ferric hydroxide sols, A., 1517.
- Dhar, N. R., and Bhagwat, W. V., influence of intensity and wave-length of the incident radiation on the photochemical reaction between hydrogen and chlorine, A., 1004.
- Dhar, N. R., and Bhattacharya, A. K., absorption of infra-red radiations and the activation in chemical reactions of molecules, A., 305.
- Dhar, N. R., and Prakash, S., influence of temperature on the coagulation of sols, and the problem of acclimatisation of animals, A., 856.
- Dhar, N. R., See also Bhagwat, W. V., Bhatia, L. S., Bhattacharya, A. K., Chakravarti, M. N., Chatterji, K. P., Ghosh, S., Palit, C. C., Prakash, S., Roy, (Miss) S., and Verma, J. K.
- Dharmani, P. L. C. See Lander, P. E.
- Dhavale, D. G., probable band spectrum of neon, A., 388.
first spark spectrum of antimony, A., 1075.
- Dhéré, C., Baumeler, C., and Schneider, A., spectrochemistry of rufin and its derivatives, A., 396.
- Dhéré, C. See also Aharoni, J.
- D'Huart, G., nature of the segregation in [steel] ingots after solidification, B., 242.
- D'Huart, K., heating [pig-iron] mixers with blast-furnace gas, B., 614.
- Diakov, M. See Vereninov, A.
- Diakova, M. See Petrenko-Kritschenko, V.
- "Diamco" Akt.-Ges. für Glühlicht. See Saulmann, W.
- Diamond, C. See Glover, W. H.
- Diamond, H., and Fromherz, H., light absorption of alkaline-earth halides in aqueous solution, A., 1234.
- Diamond, W., coke ovens, (P.), B., 310.
- Diaz de Rada, F., determination of thorium in mud from the cold springs of La Toja, Pontevedra, A., 54.
- Diaz de Rada, F., and Bermejo, A. G., solubility of various ferrocyanides in mixtures of [ethyl] alcohol and water, A., 26.
- Dibrova, A., molecular structure and the properties of homopolar compounds. II. Stereoisomerism and the structure of the carbon atom, A., 1096.
- Dichter, J., sterilisation of glass tubes and glass vessels, (P.), B., 103.
- Dick, H. W. See Triplex Safety Glass Co., Ltd.
- Dickens, F., preparation and properties of the gonad-stimulating hormone from urine of pregnancy, A., 1624.
- Dickens, F., and Šimer, F., metabolism of normal and tumour tissue. I. Measurement of the respiratory quotient, A., 1312.
metabolism of normal and tumour tissue. II. Respiratory quotient and the relationship of respiration to glycolysis, A., 1468.
- Dickerson, W. H., and Industrial Waste Products Corporation, desiccation apparatus, (P.), B., 86.
manufacture of a sugar product, (P.), B., 343.
- Dickey, C. B. See Raleigh, W. P.
- Dickey, J. B. See Gilman, H.
- Dickie, W. A. See Brit. Celanese, Ltd.
- Dickinson, R. G. See Beckman, A. O.
- Dickinson, W. P., and Marshall, P. G., isomeric monohydroxy-phenylalanines. II. Halogen-substitution products and their reactions, A., 1579.
- Dickinson, Ltd., A. J. See Groombridge, W. H.
- Dickson, A. D., Otterson, H., and Link, K. P., determination of uronic acids, A., 453.
- Dickson, A. D. See also Link, K. P.
- Diecke, B. See Gen. Aniline Works, Inc.
- Dieckmann, C. See Glud, W.
- Diego, V., recovery of organic nitrogen by dry distillation of agricultural waste, B., 1053.
- Diehm, R. A. See Waksman, S. A.
- Dieke, G. H., and Lochte-Holtgreven, W., bands of the carbon molecule, A., 124, 1074.
- Dieke, G. H. See also Lochte-Holtgreven, W., and Wood, R. W.
- Diekmann, H. See I. G. Farbenind. A.-G.
- Diels, O., and Alder, K. [with Petersen, E., and Querberitz, F.], syntheses in the hydroaromatic series. VII., A., 472.
- Diels, O., and Karstens, A., dehydrogenation by selenium. III. Dehydrogenation of ergosterol, cholic acid, and shellac, A., 470.
- Diels, O. See also I. G. Farbenind. A.-G.
- Diemair, W. See Bleyer, B.
- Diem-Bernet, U., manufacture of light-sensitive films, (P.), B., 841*.
- Dienenthal, H. See Sauerwald, F.
- Diener, O., manufacture of tools of tungsten, (P.), B., 151*.
- Dienerstein, Z. See Geness, S.
- Diener, and Estrillard, direct enumeration on solid medium of *B. coli* contained in a large volume of water, B., 38.
- Diergarten, H., determination of gases in metals, especially oxygen in iron and steel, by the hot extraction method, B., 910.
- Dierkesmann, A. See Szivessy, G.
- Dieterich, E. O., estimation of the degree of penetration of rubber into fabrics, B., 250.
- Dieterich, E. O. See also Karrer, E.
- Dieterle, W. See Matthies, O.
- Dietrich, K. R., modern methods of preparation of absolute alcohol, B., 261, 855.
preparation of absolute alcohol, D.A.B. VI., B., 1128.
- Dietrich, K. R. See also Fritzweiler.
- Dietrich, W. F., and Meyer, W., possible use of certain California clays in vitreous china sanitary-ware bodies, B., 461.

- Dietsche, O. See Bergmann, M.
 Dietz, V. See Borgstrom, P.
 Dietzel, A., velocity of crystallisation of soda-lime-silica glasses, B., 460.
 Dietzel, R., and Sällner, K., decomposition of alkaloids in aqueous solution. III. Berberine, A., 795.
 decomposition of quinine on keeping or irradiating its aqueous solution, B., 965.
 Di Franco, S., lava of the 1928 eruption of Etna, A., 734.
 Digby, W. P., [iron-copper] alloys [containing chromium and/or nickel], (P.), B., 106.
 copper-nickel-iron alloys, (P.), B., 994.
 Diggle, H. See Ellis, A. G.
 Di Gléria, J., determination of (a) the degree of unsaturation, (n) the exchangeable bases, of soils, B., 255.
 Dijatschkovski, S. I., optical rotation of colloidal silicic acid, A., 854.
 stabilisers of colloidal systems. II., A., 993.
 Dikova, M. G. See Lubarsky, G. O.
 Dikshit, B. B. See Chopra, R. N.
 Dikshit, B. B. L., and Dutt, S., chemistry of *Aegle marmelos* (the Indian Bel), A., 1628.
 Dikussar, I. G., action of ammonium sulphate and of saltpetre on development of sugar beet and maize in relation to composition of the nutrient solution, B., 961.
 Dill, D. B. See Bock, A. V., and Henderson, L. J.
 Dilling, W. J., and Haworth, E. F., distribution of colloidal lead in the tissues after intravenous injection, A., 370.
 Dillinger, (Miss) J. P. See Bozorth, R. M.
 Dillinger, M., polarographic studies with the dropping mercury cathode. VII. Maximum of current occurring in electrolysis of mercuric cyanide solutions, A., 173.
 Dillinger, M. See also Heyrovsky, J.
 Dillon, G. J., application of the Kerr effect for the investigation of the distribution of the electric field in dielectrics and the determination of some Kerr constants, A., 674.
 Dillon, J. H., growth of single crystals of low-m. p. metals in vacuum, A., 314.
 Dillon, R. T., Young, W. G., and Lucas, H. J., reaction rates of potassium iodide with $\alpha\beta$ - and $\beta\gamma$ -dibromobutanes; analysis of mixtures of $\Delta\alpha$ - and $\Delta\beta$ -butenes, A., 888.
 Dillon, R. T. See also Lucas, H. J.
 Diltz, P. See Fischer, Franz.
 Dilthey, W., Alfuss, W., and Neuhaus, L., heteropolar compounds of carbon. X. Association and colour in methoxytriphenyl-carbenium salts, A., 86.
 Dilthey, W., and Friedrichsen, J., reactivity of electropositive hydrogen atoms. IV. Oxido-oxazoles, A., 1599.
 Dilthey, W., Neuhaus, L., Reis, E., and Schommer, W., heteropolar compounds of carbon. XI. Influence of substituents on halochromism in chalcone and triphenylmethane derivatives, A., 604.
 Diltz, C. B., conserving storage-battery solution, (P.), B., 775.
 Dilworth, R. M., Niece, F. G., and Electro-Motive Co., apparatus for treating used lubricating oil, (P.), B., 703.
 Dimbleby, V., determination of boric oxide in glass, B., 767.
 Dimbleby, V., Howes, H. W., and Turner, W. E. S., homogeneity of small-scale glass meltings in platinum, B., 59.
 Dimbleby, V., Howes, H. W., Turner, W. E. S., and Winks, F., effect on properties of soda-lime-silica glass of continued remelting in platinum, B., 460.
 Dimbleby, V., Parkin, M., Turner, W. E. S., and Winks, F., effect of boric oxide on the rate of melting and on some physical properties of colourless bottle glasses, B., 58.
 Dimbleby, V. See also Cauwood, J. D., and Childs, A. A.
 Dimitrescu-Mante, potassium content of pleural discharges, A., 1208.
 Dimitrijević, I. N., blood-sugar curve in "pernocton" anaesthesia, A., 1062.
 Dinerstein, Z. M., and Geness, S. G., relation between fat and carbohydrate metabolism. II. Relation between neutral fat, ketone substances, lactic acid, and sugar after splenectomy, A., 1613.
 Dinerstein, Z. M. See also Geness, S. G.
 Dinescu, S. See Danaila, N.
 Dingemanse, E., De Jongh, S. E., Kober, S., and Laqueur, E., crystalline monoformone, A., 1320.
 Dingemanse, E. See also Borchardt, E., and Laqueur, E.
 Dingle, H., spectrum of ionised fluorine (F II), A., 1074.
 Dingler, O. See Gebauer-Füllnegg, E.
 Dingman, W. A. See Baker, M. C.
 Dinkelmann, E., extermination of soil and other plant pests, (P.), B., 298.
 Dinley, C. F., removal of foreign substances from metal [steel] surfaces, (P.), B., 18.
 Dionesov, S. M., micro-determination of pepsin in gastric juice, A., 1466.
 Dionne, M. J., and Arenstam, J. J., fluctuations of capillary blood-sugar in normal young women during a 24-hr. period, A., 1055.
 Dip-It, Inc. See David, A., and Schlatter, E. G.
 Dippy, J. F. J., and Hartshorne, N. H., polymorphism. I. Polymorphism of o-nitroaniline, A., 764.
 Dippy, J. F. J. See also Hinkel, J. E.
 Dirac, P. A. M., theory of electrons and protons, A., 271.
 annihilation of electrons and protons, A., 1231.
 exchange phenomena in the Thomas atom, A., 1231.
 Dirken, M. N. J., and Mook, H. W., rate of solution of carbon dioxide in liquids, A., 799.
 oxygen-combining power of muscle-haemoglobin, A., 945.
 Dirks, B., and Scheffer, F., carbon dioxide-bicarbonate and water extracts as bases for the determination of the phosphate requirement of soils, B., 876.
 Dirnay, J., soldering of aluminium, (P.), B., 199.
 Dirner, Z. See Issekutz, B. von.
 Dirscherl, W., acylloins. II. Formation of acetoin from acetaldehyde and from pyruvic acid by irradiation with ultra-violet light, A., 893.
 Dirscherl, W., and Braun, E., acylloins. I. Acetoin and its dimers, A., 454.
 Dirscherl, W. See also Freudenberg, K.
 Disc Bar Mills, Ltd., and White, E. A., mills for grinding paints, enamels, inks, and other viscous substances, (P.), B., 917, 970.
 Dische, Z., colour reactions for thymonucleic acid and its determination in animal organs, A., 632.
 specificity of the colour reactions of Dische for the purine- and pyrimidine-nucleosides of thymonucleic acid, A., 1609.
 Dischendorfer, O., condensation of aldehydes and phenols. IV. o-Chlorobenzylidenedi- β -naphthol [o-chlorophenyldi-2-hydroxy- α -naphthylmethane], A., 1592.
 Dischendorfer, O., and Juvan, H., phytochemistry. VI. *allobetulin*, A., 1590.
 Diserens, L., printing with indigoid dyes, B., 415.
 Dispersion Process, Inc. See Pratt, W. B.
 Di Stefano, F. See Marotta, D.
 Distillation Dynamique, separation of liquids by distillation, (P.), B., 645.
 Ditmar, R., and Fuhrmann, O., use of madder lake in accelerated rubber mixtures, B., 998.
 Ditmar, R., and Preusse, K. H., difference between ultramarine and Thénard's blue in rubber mixtures, B., 471.
 Rinnmann's green in accelerated rubber mixtures, B., 728.
 volume increase in vulcanisation [of rubber], B., 781.
 Dittler, E., analysis of chromiferous silicates, A., 52.
 beryl from southern Tirol, A., 57.
 Dittler, E. See also Cornelius, H. P.
 Dittmar, H. R., decomposition of malic acid by sulphuric acid, A., 1131.
 Dittmar, H. R., Baldwin, I. L., and Miller, S. B., influence of certain inorganic salts on the germicidal activity of hydrogen peroxide, A., 645.
 Dittmar, P. See Krause, E.
 Ditz, E. See Tiffeneau, M.
 Ditz, H., formation and composition of bleaching powder, A., 1138.
 Ditz, H., and May, R., chlorometric, bromometric, and iodometric determination of available chlorine in hypochlorite solutions and bleaching powder. I and II, A., 310; B., 417.
 removal of excess solder from soldered joints, (P.), B., 199.
 Diversey Manufacturing Co. See Adler, H.
 Diwoky, F. F. See Adkins, H.
 Dixmier, G. See Damian, J.
 Dixon, E. C., comparisons of silica-walled ovens and semi-silica-walled ovens in the same battery, B., 271.
 Dixon, H. A., and Bennet-Clark, T. A., electrical properties of oil-water emulsions with special reference to the structure of the plasmatic membrane, A., 855.
 Dixon, H. B., and Higgins, W. F., ignition temperatures of gases in nitrous oxide, A., 1127.
 Dixon, J. K., heat of adsorption of carbon dioxide on charcoal calculated by means of Póányi's theory of adsorption, A., 683.

- Dixon, J. K. See also Foote, H. W.
 Dixon, M., and Elliott, K. A. C., use of the Barcroft apparatus for measuring tissue respiration, A., 968.
 Dixon, M. See also Meldrum, N. U.
 Dixon, R. S. See Davies, W. C.
 Dixon, T. H. L., machines for coating paper, fabric, etc., (P.), B., 761.
 Djakonova-Schultz, L. N., decomposition of products of combination of halogen-substituted esters with tertiary amines, A., 1191.
 Djang, G. S. See Berl, E.
 Djuricic, I., dextrose and normohæmolysins, A., 361.
 D'Leny, W. See Imperial Chem. Industries, Ltd.
 Dmitrevskaya, N. A., and Chebotarevich, M. A., influence of the composition of the medium on the biological properties of micro-organisms, A., 1622.
 Dmitriev, G. A. See Gurvich, M. N.
 Dmochowski, A., extractive purines of muscle. I., A., 238.
 Dobbin, C. E., carbon ratios and oil gravities in the Rocky Mountain region of the United States, B., 597.
 Dobbins, J. T., and Mebane, W. M., quantitative precipitation of calcium oxalate in the presence of the phosphate ion, A., 726.
 Dobioš, A., Kramp, L., and Lebedinskaja, O., electro-osmosis theory of the electrolytic rectifier, A., 999.
 Dobke, W. See Thoms, H.
 Dobler, L. F., sizing of paper, (P.), B., 279.
 Doboczky, A. See Stickstoff-Werke A.-G. Ruse.
 Doborzynski, D., dielectric constant of liquid bromine, A., 1347.
 Dobretsberger, H., influence of adsorbed gas on the high-frequency resistance of platinum wires, A., 1505.
 Dobrovolska, H. See Herszfeld, H.
 Dobrovolski, A. See Petrenko, G. J.
 Dobrovolski, P. See Zemlyanitsyn, V.
 Dobryanski, A., and Gurevich, E., amyl acetate from aviation gasoline, B., 131.
 Dobryanski, A., and Khesin, I., determination of aromatics in gasoline by the nitrobenzene method, B., 402.
 Dobryszewski, M., polarographic studies with the dropping mercury cathode. IX. Deposition of zinc and cadmium from ammoniacal solutions, A., 546.
 Doby, G. von, and Kertész, Z. I., enzymes and salt ions. I. Invertase of *Penicillium* lacking potassium, A., 1067.
 Docking, A. See Premix Gas Plants, Ltd.
 Doering, U. See Spanner, H. J.
 Dodd, A. S., determination of boron compounds in foods and drugs, B., 81.
 methods of determining boron compounds in food and drugs. II. Experimental; effect of fats and other organic substances on the determination. III. Conditions required for quantitative titration, B., 215.
 Dodd, H. See Imperial Chem. Industries, Ltd.
 Dodds, E. C., Allan, A. G. H., and Gallimore, E. J., properties of the comb-growth-promoting substance obtained from testes and urine, A., 1321.
 Dodds, E. C., and Robertson, J. D., lactic acid and carcinoma of the stomach, A., 1468.
 Dodge, B. F., methyl alcohol equilibrium, A., 292.
 Dodge, B. F. See also Huffmann, J. R., and Wettberg, E. F. von.
 Dodge, E. F. See Rockwood, R.
 Dodge, F. D., caryophyllin and urson, A., 783.
 derivatives of coumarin. II., A., 784.
 Dodonova, E. V. See Ivanov, N. N.
 Doerbecker, W., sterilisation and preservation of fruit juices, (P.), B., 792.
 Doerell, E. G., influence of phosphoric acid on the yield and quality of hops, B., 258.
 effect of phosphoric acid on the firmness of stalks, B., 258.
 Dörfeldt, W. See Blanck, E.
 Doerinkel, F., Mehler, L., and Titanium Pigment Co., Inc., manufacture of titanium dioxide, (P.), B., 239.
 Döring, I., permanganometric determination of molybdenum, A., 1548.
 Doering, U. See Spanner, H. J.
 Doerner, H. A., possibilities of production of radium and vanadium from carnotite, B., 377.
 centrifugal concentration, B., 843.
 Dörr, E. See I. G. Farbenind. A.-G.
 Dörr, O. See Consort. f. Elektrochem. Ind. G.m.b.H.
 Dörr, W. See Curtius, T.
 Dörr & Hofman. See Consort. f. Elektrochem. Ind. G.m.b.H.
 Dörrenberg, O., and Broglio, N., production of alloy steels in coreless induction furnaces, B., 716.
 Docs de Bijé, A. J. M. A. R. van der, [mechanical stoker for] furnaces, (P.), B., 494.
 Dœuvre, J., compounds of the citronellie and rhodinol series, A., 324.
 conversion of menthone into citronellol, A., 782.
 Dœuvre, J. See also Grignard, V.
 Doggett, W. B. See Busse, W. F.
 Doherty Research Co. See Bierregaard, A. P., and Morgan, J. D.
 Dohme, A. R. L., and Sharp & Dohme, Inc., production of acyl-resorcinols, (P.), B., 410*.
 Dohogne, A., tanning and dyeing of furs, B., 782.
 Dohse, H., heterogeneous decompositions. II., A., 431.
 heterogeneous decompositions. III. Decomposition of methyl alcohol on zinc oxide, A., 1003.
 size of the cellulose molecule in copper-ammine solution, A., 1416.
 solution of cellulose in copper-ethylenediamine solution, A., 1416.
 Dohse, H., Kolberer, W., and Schuster, C., reaction kinetics of unimolecular adsorption layers, A., 1379.
 Doisy, E. A., Veler, C. D., and Thayer, S., crystalline ovarian hormone (œstrin) from urine of pregnant women, A., 821.
 Doisy, E. A. See also Levy, M., and Veler, C. D.
 Dojarenko, M. N. See Demjanov, N. J.
 Doklenko, I. I., and Sokolov, G. A., capacity of crystallisation of green syrups treated with activated carbon, sulphur dioxide, and carbon dioxide, B., 298.
 Dolak, F. See Dedek, J.
 Dolby, R. M., and Robertson, P. W., electrical conductivity of phenol solutions, A., 1253.
 Dolch, M., and Gieseler, K., brown coal: [determination of] volatile constituents, B., 172.
 Dolch, M., Pöschmüller, E., and David, H., [determination of] water content of lignite coke, B., 172.
 Dole, M. See Falkenhagen, H., Jones, G., and MacInnes, D. A.
 Dole, W. S., dehydration of gas, B., 848.
 Dolejšek, V., periodicity of elements in X-ray spectra, A., 972.
 Dolejšek, V., and Pestrecov, K., determination of the course of levels in the periodic system from the values of the eighth group A., 132.
 Dolgopol, V. B., blood-calcium in pulmonary tuberculosis, A., 1208.
 Dolgov, B. N. See Ipatiev, V. N.
 Dolgov, K. A. See Tananaov, N. A.
 Dolin, B. T. See Fishberg, E. H.
 Dolinek, A., immersion refractometer, B., 1095.
 Dolique, K., β -benzyl- n -hexyl and γ -phenyl- β -benzyl- n -propyl alcohols and isomeric β -benzyl- n -hexan- β -ol and α -phenyl- β -benzylpropan- β -ol, A., 771.
 Doliwo-Dobrowski, W., and Kahan, I., preparation of [rosin] size [for paper] by a cold process, B., 137.
 Doljanski, L., Trillat, J. J., and Du Nouy, action of X-rays on tissue cultures *in vitro*, A., 955.
 Dolley, P. T., and California Cyanide Co., Inc., production of hydrocyanic acid, (P.), B., 765*.
 Dolmage, V., origin of Copper Mountain (British Columbia) ores, A., 1156.
 Dolter, H., dry distillation, especially of calcium butyrate, (P.), B., 275.
 Dombrovskaja, N. S. See Bergman, A. G., and Nikolaiev, V. J.
 Dominguez, M. L., and Pascual, J., electrical agitator for the laboratory, A., 1395.
 Dominik, W., production of ammonium oxalate for use as fertiliser, B., 387.
 Dominikiewicz, M., volumetric determination of sulphates, A., 879.
 Domontovitsch, M. See Ettisch, G.
 Domontovitsch, M. K., phosphate nutrition of cultivated plants, B., 296.
 Donahue, T. H., status of electrolysis as a metallurgical process, B., 668.
 Donat, K., and Philipp, K., influence of temperature of the collector on yield by recoil from β -ray disintegration of thorium-B, A., 130.
 Donat, K. See also Erbacher, O.

- Donath, E., employment of sodium thiosulphate in analytical chemistry, A., 311.
detection and determination of pine-rosin in various mixtures, B., 957.
- Donath, P. See Tausz, J.
- Donath, W. P., nutritive value of condensed milk and milk powder, B., 880.
- Donau, J., inorganic gravimetric micro-analysis. I. Determination of minute amounts of gold in the presence of much iron, lead, and copper, A., 1150.
micro-balance with proportional swings and damped oscillations, A., 1548.
- Dondain, A., and Stiegler, A., printing with indigoid dyes, B., 415.
- Donhofer, S., and Donhofer-Mittag, M., effect of substances which inhibit coagulation on the reducing colloids of plasma, A., 103.
- Donhofer-Mittag, M. See Donhofer, S.
- Donle, H. L., and Volkert, G., dipole moments and ultra-violet absorption of organic molecules, A., 979.
- Donle, H. L., and Wolf, K. L., dipole moments of some alcohols and esters, A., 979.
- Donnan, F. G., theory of equilibrium distribution of ions in a gel system with variable distribution of micelles, A., 694.
catalytic reactions at high pressures, A., 868.
- Donnan, F. G., and Krishnamurti, K., scattering of light in sols and gels, A., 692.
- Donnelly, J. T., and Reilly, J., peat. III. Low-temperature carbonisation of peat, B., 647.
- Donnelly, R. P., combination of hydrogen and oxygen on the surface of nickel, A., 42.
- Donnington, S. H., imparting a blue colour to leather polish, (P.), B., 783.
- Dôno, T. See Asahina, T.
- D'Onofrio, G., preservation of green peas by canning, (P.), B., 484.
- Donovan, P. P. See Pringsheim, H., and Reilly, J.
- Dony, O., reduction of zinc oxide by means of gaseous carbon monoxide at atmospheric pressure and at high pressures, B., 244.
electric heating [for rectifying stills] and furnaces, B., 245.
- Doolas, G. Z., local variation of soil acidity in relation to soya-bean inoculation, B., 1124.
- Dooley, W. D., rectifying device and its production, (P.), B., 672.
electrolyte for rectifiers, condensers, etc., (P.), B., 775.
- Dopter, P., colorimetric determination of p_H of molasses, B., 1126.
- D'Or, L., thermal dissociation of pyrites, A., 996.
manometric and spectroscopic study of the thermal dissociation of pyrites FeS_2 , A., 977.
- Dorabalska, (Mlle.) A., heat of radiation of some radioactive minerals, A., 56.
heat emission of polonium, A., 130.
application of adiabatic microcalorimeter to measurements of the heats of radiation of uranium, thorium, and radioactive minerals, A., 270*.
heat of radiation of polonium, A., 837.
- Doran, C. A., alkoxy-derivatives of diphenyl ether, A., 84.
- Doran, W. L., effects of soil temperature and reaction on growth of tobacco infected and uninfected with black root rot, B., 209.
- Doran, W. L. See also Holland, E. B.
- Dorfman, J., magnetic moment of the atomic nucleus, A., 676.
- Dorfman, W. A., ion-antagonism in colloid models. III. Influence of dehydrating media on the coagulation of hydrophilic sulphur sols by electrolytes and electrolyte mixtures, A., 1116.
- Dorfman, W. A., and Ščerbačeva, D., ion antagonism in colloid models. IV. Double nature of Hofmeister's anion series and the factors of ion antagonism, A., 1368.
- Dorfmueller, G., determination of nitrogen in osazones by Kjeldahl's method, A., 1166.
- Dorfmueller, T. See Wieland, H.
- Dorier, P. C. See Bert, L.
- Dorman, Long & Co., Ltd., and Kirby, M. R., dust separators and collectors, (P.), B., 747.
- Dornedden, H., purification of drinking water by slow sand filtration, B., 968.
- Dorner, B., and Cornstalk Products Co., production of cellulosic material, (P.), B., 610*.
- Dorner, B. See also Ameroamerican Cellulose Products Corp.
- Dorner, O. See Fischbeck, K., and Meisenheimer, J.
- Dorner, W. C., negative staining of bacteria, A., 377.
- Dornfried, A., Karcher, E., and Single, A., [optical pyrometer for] measurement of high temperatures, specially of incandescent bodies, (P.), B., 444.
- Dornite, R. W., and Smyth, C. P., dielectric polarisation of liquids. X. Polarisation and refraction of the normal paraffins, A., 1347.
- Dorough, G. L. See Carothers, W. H.
- Dorr, E. See I. G. Farbenind. A.-G.
- Dorr, J. V. N., Darby, G. M., Terry, A., jun., Spicer, H. N., and Dorr Co., manufacture of sodium aluminate, (P.), B., 1027.
- Dorr Co., vessel for dissolving fine-grained substances, (P.), B., 40.
apparatus for removing the separated solid matter from strainers for liquids, (P.), B., 1135.
- Dorr Co. See also Bousman, S. I., Bull, A. W., Dorr, J. V. N., Downes, F. A., Gregorich, J., Stewart, R. F., and Weber, W. C.
- Dorrer, E. See Wieland, H.
- Dorronsoro, J. See Piña de Rubies, S.
- Dorsch, K. E., and Deubel, A., measuring viscosity of setting cement (immersion-filter method), B., 665.
- Dorsch, K. E., and Kallmann, H., ionisation of dicyanogen by slow electrons, A., 398.
- Dorsey, J. H. See Hendricks, B. C.
- Dorsey, N. E., ring methods for surface tension measurements, A., 56.
- Doser, A. See I. G. Farbenind. A.-G.
- Dosios, K., and Pierri, J., determination of metal in organic compounds incapable of electrolysis, A., 1277.
- Dossman, A., apparatus for melting electrolytic tin, (P.), B., 200.
- Dote, S., and Shidei, T., absorption of agar-agar and *Conophallus Konjak* in the ultra-violet region, A., 661.
- Dotrepe, G., determination of tungsten by stannous chloride, A., 183.
determination of tungsten by means of phenylhydrazine hydrochloride in hydrochloric acid solution, A., 183.
- Dott, D. B., official tests for resins of jalap, podophyllum, and scammony, B., 484.
- Dotter, A. L. See Mine Safety Appliances Co.
- Dougan, W. C., manufacture of non-splintering laminated glass sheets, other compound inter-adherent laminated sheets, etc., (P.), B., 1067.
- Dougherty, G., and Gleason, A. H., dehydration of derivatives of α -benzoylbenzoic acid, A., 780.
- Doughten, J. J., waterproofing of leather for packing, etc., (P.), B., 114.
- Doughty, J. L., fixation of phosphate by a peat soil, B., 255.
- Doughty, R. H. See Baird, P. K.
- Dougill, G. See Lustrafl, Ltd.
- Douglas, C. E. See Ricks, S. J.
- Douglas, R. W. See Proctor, R. F.
- Doull, A. C., and Barnett, S. E., physical aspects of fermentation and their relation to brewery practice, B., 635.
- Doulton & Co., Ltd. See Woodall-Duckham (1920), Ltd.
- Dousa, K. See Kubelka, V.
- Dow, M. T. See Drake, F. H.
- Dow, O. D. See Supplee, G. C.
- Dow Chemical Co. See Britton, E. C., Collings, W. R., Gann, J. A., Hale, W. J., Heath, S. B., Putnam, M. E., and Veazey, W. R.
- Dowdell, R. L. See McGrae, J. V., and Staples, E. M.
- Downes, F. A., and Dorr Co., agitation and settling apparatus; [water softener], (P.), B., 886.
- Downes, F. A. See also Hoover, C. P.
- Downes, H. R., lactic acid formation in tumour tissue, A., 240.
- Downes, J. R., and Pacific Flush-Tank Co., purification of sewage, (P.), B., 266.
- Downingtown Manufacturing Co., manufacture of fibre board from pulp, (P.), B., 369.
- Downs, C., and Bellwood, R. A., apparatus for production of fish meal, etc., (P.), B., 684.
- Doyle, H. C. See Martin, F. J.
- Drabkin, D. L., pigment of urine. III. Extraction. IV. Properties, A., 1467.
- Draganesco, S. Z. See Marinesco, G.
- Dragendorff, O., resin of *Garcinia mangostana*, L., A., 1578.
- Dragunov, S. S. See Britzke, E. V.
- Drahten, von. See Chem. Fabr. Coswig-Anhalt G.m.b.H.
- Draibach, F., and Benckiser Chemische Fabrik, J. A., separation of alkaline-earth phosphates from primary alkali phosphate solutions, (P.), B., 239.
stabilisation of bleaching liquors, (P.), B., 506*.
- Drake, E. T. See Sturges, W. S.

- Drake, F. H., Pierce, G. W., and Dow, M. T., measurement of the dielectric constant and index of refraction of water and aqueous solutions of potassium chloride at high frequencies, A., 666.
- Drake, N. L., and Bronitsky, J., *p*-phenylphenacyl bromide, a reagent for identifying organic acids, A., 1436.
- Drake, N. L., and Carter, R. M., representative carbonates and carbethoxy-derivatives related to ethylene glycol, A., 1403.
- Drake, N. L., and Spies, J. R., mannitol from *Haplophyton cnicoides*, A., 1483.
- Drake, W. V. See Sandin, R. B.
- Draper, T. See Associated Electrical Industries, Ltd.
- Drboglav, M. A. See Smirnov, A. I.
- Dreaper, W. P., manufacture of artificial silk and similar products, (P.), B., 760.
manufacture of artificial silk, etc., (P.), B., 1147*.
- Dreffein, H. A., furnaces for heating articles, (P.), B., 744.
apparatus for heating billets, etc., (P.), B., 823.
heating furnace [for viscous fluids, e.g., tar, etc., (P.), B., 1008.
- Dreibelbis, F. R. See Schollenberger, C. J.
- Dreifuss, M., and Staab, A., protection against acid vapours of ventilating fans in laboratories, A., 883.
- Dreisich, T., and Rütten, E., infra-red absorption and the structure of very thin sputtered metal films, A., 396.
- Drescher, H. A. E., Fairweather, D. A. W., Thomas, J., and Scottish Dyes, Ltd., production of dye intermediates, etc.; [conversion of aroylaromatic acids into aromatic acids], (P.), B., 409.
- Drescher, H. A. E., Thomas, J., and Scottish Dyes, Ltd., [synthesis of] anthraquinone derivatives, (P.), B., 1059.
- Drescher, H. A. E. See also Pandridge, A. G., and Thomas, J.
- Dresia, W. F. See Leighton, P. A.
- Dressler, H. See Slotta, K. H.
- Drew, H. D. K. See Angell, F. G.
- Dreys, B., importance of hydrogen-ion concentration in potato-spirit distilleries, B., 480.
- Dreyer, K. L. See Tammann, G.
- Dreyfus, C., production of [moiré-patterned fabrics] from organic derivatives of cellulose, (P.), B., 505*.
- Dreyfus, C., Blume, W. R., and Celanese Corporation of America, ornamental fabric and its manufacture, (P.), B., 1149*.
- Dreyfus, C., and Celanese Corporation of America, liquid coating composition, (P.), B., 249*.
- Dreyfus, C., Platt, H., and Celanese Corporation of America, preserving the lustre of organic derivatives of cellulose, (P.), B., 186*.
- Dreyfus, C., Schneider, G., and Celanese Corporation of America, manufacture of products having a basis of cellulose derivatives, (P.), B., 138.
- Dreyfus, C. See also Brit. Celanese, Ltd., Miles, G. W., and Rivat, G.
- Dreyfus, G. L., solubility of salvarsan in indifferent, detoxicating, and activating liquids, A., 683.
- Dreyfus, H., manufacture of aliphatic anhydrides, (P.), B., S.
manufacture of aliphatic compounds [acetic anhydride], (P.), B., 51*.
manufacture of acetic anhydride, (P.), B., 51*.
apparatus for production of artificial filaments or threads, (P.), B., 53, 318.
dyeing of materials containing cellulose derivatives, (P.), B., 54*.
manufacture of aliphatic [acetic] esters and acids, (P.), B., 95.
manufacture of methyl alcohol, (P.), B., 95.
manufacture of textile materials [staple fibres], (P.), B., 100.
manufacture of acetic acid, (P.), B., 234.
treatment of films, threads, fabrics, etc., made from cellulose esters and ethers, (P.), B., 237.
manufacture and treatment of cellulose derivatives, (P.), B., 279.
treatment of materials containing cellulose esters or ethers, (P.), B., 319.
manufacture or treatment of threads or filaments of organic cellulose derivatives, (P.), B., 319.
manufacture and treatment of cellulose esters, (P.), B., 414.
manufacture of cellulose esters, (P.), B., 414, 504.
manufacture of cellulose derivatives, (P.), B., 457.
manufacture of composite materials, etc., [non-splintering glass], (P.), B., 558.
manufacture of cellulose ethers, (P.), B., 610.
- Dreyfus, H., manufacture of filaments, films, etc., from cellulose derivatives, (P.), B., 656.
production of keten, (P.), B., 941*.
[production of] textile fabrics [having crêpe-like or pebbled effects], (P.), B., 944.
manufacture of aliphatic [acetic] acid anhydrides, (P.), B., 1142.
production of solutions and compositions of cellulose esters and ethers and products made therefrom, (P.), B., 1147.
production and treatment of textile and other materials containing cellulose derivatives, (P.), B., 1147.
mordanting and dyeing of materials containing cellulose derivatives, (P.), B., 1148*.
- Dreyfus, H. See also Brit. Celanese, Ltd.
- Dreyfuss, Y. See Leulier, A.
- Dreyspring, C., and Krügel, C., comparative tests of Swedish soil for available phosphoric acid, B., 257.
phosphoric acid content and reaction conditions of the soil in various countries, B., 386.
- Dreyspring, C., Krügel, C., and Pantke, R., root-solubility of the phosphoric acid of superneutral, Reform, and Algerian phosphates, B., 341.
- Drier, R. W., photo-electrometallurgy, B., 378.
- Drigenko, C. T., and Seligman, L., low-temperature carbonisation retorts, (P.), B., 851.
- Driggers, B. F., lead arsenate studies on cranberry bogs in New Jersey, B., 342.
- Driggs, F. H., and Lilliendahl, W. C., preparation of metal powders by electrolysis of fused salts. I. Ductile uranium, B., 668.
- Drinker, C. K., and Shaughnessy, J., use of 7% carbon dioxide and 93% oxygen in the treatment of carbon monoxide poisoning, A., 101.
- Drinker, C. K. See also Heller, E., Murphy, D. P., and Titus, A. S.
- Drisch, N. See Dufrasse, C., and Moureu, C.
- Drissen, E. M. See Williams, J. W.
- Dron, D. W., decortication [machinery] for preparation of vegetable fibres, (P.), B., 185.
- Drossbach, P., decomposition potential of alumina in molten cryolite-alumina mixtures, A., 707.
- Drouot, M. A. See Serpillier, R. E.
- Dru, R. See Hough, A. T.
- Drucker, C., and Marxen, J., adsorption of gas mixtures by glass, A., 850.
- Drujans, M. See Straumanis, M.
- Drum, J. J., and Celia, Ltd., [alkaline] electrical accumulators or secondary batteries, (P.), B., 1117.
- Drumm, J. J., Carolan, R. J. P., and Ryan, H., constitution of isocatechin tetramethyl ether, A., 349.
- Drumm, J. J., Maguire, S. M., and Ryan, H., 3':4'-dimethoxybenzyl-3,5-dimethoxycoumaranone, A., 348.
- Drumm, P. J. See Reilly, J.
- Drummond, A. A. See Imperial Chem. Industries, Ltd., and Megson, N. J. L.
- Drummond, J. C., and Gunther, E. R., vitamin content of marine plankton, A., 1321.
- Drummond, J. C. See also Ahmad, B., and Narayanan, B. T.
- Drummond, W. J. See Ashington Coal Co., Ltd.
- Drury, A. N., and Szent-Györgyi, A., physiological activity of adenine compounds, A., 118.
- Drury, D. R., and McMaster, P. D., the liver as a source of fibrinogen, A., 103.
- Drury, P. E. See Stoddard, J. L.
- Druten, A. van. See Raalte, A. van.
- Druyvesteyn, M. J., occurrence of the neon spark lines in the negative glow, A., 1076.
[abnormal] low-voltage arcs, A., 1490.
- Druzhinin, D. V., influence of lime and raw phosphates on podsolised soil and crop yields, B., 73.
experiments with Solikamsk potassium salts in 1927, B., 74.
- Dry Ice Equipment Corporation, (A) refrigerators, (B) method of refrigeration, using solid carbon dioxide as refrigerant, (P.), B., 400.
carbon dioxide ice apparatus, process, and product, (P.), B., 766.
- Dryden, H. E., treatment of top-fermentation pale ale, mild ale, and stout after the primary fermentation for bottling and draught purposes, (P.), B., 787.
- Drysdale, H., grinding mills, (P.), B., 845, 969.
- Drysdale, J. W. W. See Drysdale & Co., Ltd.

- Drysdale & Co., Ltd., and Drysdale, J. W. W., [apparatus for] de-aerating lubricants, (P.), B., 855.
- Drysdale & Co., Ltd., and Young, J., electrical heating and mixing apparatus, (P.), B., 1.
- Dserschkovitch, A. A., and Andreev, K. K., properties of nitro-glycerin isomerides, B., 1170.
- Duane, W., polarisation of X-radiation, A., 127.
- Dubaquière, J., reduction in white wines, B., 836.
- Dubbs, C. P., cracking of oils, (P.), B., 893.
- cracking of [hydrocarbon] oils, (P.), B., 1013.
- Dubbs, C. P., Morrell, J. C., and Universal Oil Products Co., conversion of hydrocarbon oils, (P.), B., 979.
- Dubbs, C. P., and Universal Oil Products Co., [cracking] treatment of [hydrocarbon] oil, (P.), B., 1056.
- production of lower-boiling hydrocarbons, (P.), B., 1056.
- Dubinín, M. M., absorption of gas from a current of air, A., 989.
- adsorption phenomena in solution. XXII. Orientation of the adsorption series and its dependence on the conditions of activation of sugar charcoal, A., 1364.
- Dubinín, M. M. See also Schilov, N. A.
- Dubois, E., Volta effect; influence of oxidation of the electrodes, A., 165.
- Du Bois, E. F. See McClellan, W. S.
- Dubois, J., protective coatings for metals, (P.), B., 197.
- determination of carbon monoxide in illuminating gas, B., 975.
- Dubois, L. See Nyiri, W.
- Dubois, P. A. See Delaby, R.
- Du Bois, R. See McBain, J. W.
- Dubos, R. See Avery, O. T.
- Dubovitz, H., preparation of pure palmitic and stearic acids in large quantities, A., 1557.
- Dubreuil, E. See Fabry, C.
- Dubrisay, R., thermodynamic theory of catalysis, A., 41.
- Dubrisay, R., Arditti, R., and Astier, C., transformations effected by adsorption, A., 685.
- Dubrisay, R., and Trillat, J. J., argillaceous suspensions, A., 690.
- Dubský, J. V., and Kuraš, M., analytical study of the reactions of oximes, A., 195.
- Dubský, J. V., and Rabas, A., additive compounds of organic bases with salts of heavy metals, A., 335.
- ability of glycine to form salts, A., 1026.
- additive compounds of organic bases with zinc salts, A., 1046.
- Dubský, J. V., and Tesarik, E., compounds of acetates with inorganic salts, A., 62.
- [preparation of] basic salts, particularly "ol" salts of copper, A., 1006.
- Dubský, J. V., Tesarik, E., and Okác, A., basic salts, particularly the hydroxy-salts of copper, A., 1006.
- Duchêne, R. See Aubert, M.
- Duchscher & Cie., Société en Commandite, apparatus for pressing out oil-containing seeds or fruit, (P.), B., 67.
- cooking and agitating apparatus for extracting oil from palm fruit, (P.), B., 155.
- Duckham, (Sir) A. McD., repairing heated structures such as furnaces, retorts, etc., (P.), B., 1136*.
- tunnel kiln, (P.), B., 1153*.
- Duckham, (Sir) A. McD., and Woodall-Duckham (1920), Ltd., tunnel kiln, (P.), B., 613*.
- Duckham, (Sir) A. McD. See also Woodall-Duckham (1920), Ltd.
- Duckham, A. N. See Woodman, H. E.
- Duckworth, S. W., Thomas, J., and Scottish Dyes, Ltd., manufacture of dyes [in dry, finely-divided form], (P.), B., 277.
- Duclaux, J., and Nodzu, R., osmotic pressure of solutions of cellulose nitrate, A., 413.
- Duclaux, J., and Titšica, R., molybdenum-blue, A., 289.
- micellar and Donnan equilibria, A., 1366.
- Ducloux, E. H., and Pastore, F., Isthilart meteorite, A., 1399.
- Duco, C. L., and Panza, P. T., determination of bile acids; bile salts in urine, A., 1308.
- Duerue, H. See Maurer, E.
- Duden, C. W. See Olmsted, W. H.
- Dudgeon, Inc., R. See Mathers, W. H.
- Dudley, H. W. See Dale, H. H.
- Dudley, J., and Koskovski, V., gaseous exchange in fever caused by naphthylamine-yellow or by β -tetrahydronaphthylamine, A., 366.
- Dünwald, H. See Häufel, K.
- Dürigen, F., and Hantzsch, A., [methods of refractometry and the refractivity-concentration relations of perchloric acid], A., 410.
- Dürigen, F. See also Hantzsch, A.
- Düring, A., comparative sucrose determinations in sweetened condensed milk, B., 437.
- Dürr, W. See Freudenberg, K.
- Duesing, F. W., cast steel as a constructional material for machines, B., 615.
- Düsing, J. See Manchot, W.
- Duff, I. A. J., connexion between the I.P.T. gravity temperature-correction constants and the coefficient of expansion of petroleum oils, B., 649.
- Duff, J. C., solubilities of *o*- and *p*-nitrophenols in aqueous methyl-alcoholic solutions at 25° and 40°; formation of β -p-nitrophenol, A., 149.
- Duff, J. C., and Bills, E. J., solubilities of nitrophenols in aqueous ethyl-alcoholic solutions, A., 989.
- Duffek, V., determination of rust-resistance of special steels, B., 1156.
- Duffendack, O. S., Henshaw, C. L., and Goyer, (Miss) M., excitation of the Mg II spectrum by impacts of the second kind with metastable atoms and ions of the rare gases, A., 2.
- Duffendack, O. S. See also Thomas, C. H.
- Duffield, F. L., recovery of copper and other metals from copper-bearing ores, (P.), B., 64.
- recovery of nickel and other metals from ores containing nickel, (P.), B., 669.
- reduction of ores, (P.), B., 1159*.
- Dufford, R. T., photo-voltaic effects in Grignard solutions, A., 1126.
- Dufour, L. See Terrisse, H.
- Dufraisse, C., and Badoche, M., dissociable organic oxides; transformation of rubrene into isorubrene oxide, a non-dissociable isomeride, A., 1173.
- Dufraisse, C., and Drisch, N., dissociable organic oxides; dibromorubrene, A., 1570.
- Dufraisse, C., and Enderlin, L., structures capable of showing reversible oxidisability: the benzofuran group, A., 923.
- Dufraisse, C. See also Moureu, C.
- Dufton, A. F., and Marley, W. G., measurement of flow of heat, B., 123.
- Duhamel, E. C., degumming of fibres, (P.), B., 759.
- Duhamel, E. C., and Compagnie Générale des Industries Textiles, extraction or recovery of useful products from non-fibrous materials [by means of saint liquor], (P.), B., 853.
- obtaining fibres from fibrous vegetable material, (P.), B., 858.
- Duhme, E., and Schottky, W., unidirectional and photo-effects at the interface of cuprous oxide and deposited metal layers, A., 1254.
- Duilius, manufacture of cocaine, B., 347.
- preparation of atropine, B., 439.
- Duisberg, W. See Gen. Aniline Works, Inc.
- Duke-Elder, W. S., physico-chemical properties of the vitreous body, A., 104.
- Dukes, C., heat-resistance curve: bacteriological test for pasteurised food, B., 215.
- Dulière, W. L., and Raper, H. S., tyrosinase-tyrosine reaction. VII. Action of tyrosinase on certain substances related to tyrosine, A., 814.
- Dumanois, E. P., carburetion of methyl alcohol [for fuel], (P.), B., 314.
- Dumanois, P., and Mondain-Monval, P., direct oxidation of hydrocarbons by air, A., 67.
- Dumanois, P. See also Prettre, M.
- Dumanskaja, A. P. See Dumanski, A. V.
- Dumanski, A. V., application of triangular co-ordinates to the graphical representation of colloid states, A., 1370.
- Dumanski, A. V., and Dumanskaja, A. P., determination of the porosity of heteroporous membranes, II, A., 154.
- Dumanski, A. V., and Granskaja, T. A., application of effects associated with electrodes of unequal surface to observations on the formation of colloidal systems, A., 424.
- Dumanski, A. V., and Putschkovski, B. S., refractive indices of hydrosols. II, A., 290.
- protective properties of sols prepared by the tartaric acid method, A., 855.
- Dumanski, A. V., and Scherschnev, P., study of the kinetics of coagulation of colloids by the aid of a photo-element, A., 856.
- Dumanski, A. V., and Simonova, V. M., effect of multivalent hydroxy-compounds in the synthesis of hydrosols. I. Multivalent alcohols: glycerol and mannitol, A., 691.
- effect of multivalent hydroxy-compounds in the synthesis of hydrosols. I, A., 854.

- Dumanski, A. V., and Tschescheva, Z. P., galvano-colloids. II. Formation of aluminium hydroxide, A., 157.
galvano-colloids. III. Formation of iron hydroxide hydrosols, A., 1517.
- Dumanski, A. V., Tschescheva, Z. P., and Banov, A. V., luminous effect on mercury electrodes during electrolysis, A., 172.
- Dumanski, A. V., and Zaprometov, B. G., polyatomic hydroxy-compound method of synthesis of hydrosols. II, A., 992.
- Dumars, H., Bowen-Dumars Power Corporation and Cuntz, H. F., natural-gas liquefaction, (P.), B., 1013.
- Du Mond, J. W. M., breadth of Compton modified line, A., 1228.
- Du Mond, J. W. M., and Hoyt, A., energy of $K\alpha_2$ of copper as a function of applied voltage with the double-crystal spectrometer, A., 1491.
- Du Mond, J. W. M., and Kirkpatrick, H. A., multiple crystal X-ray spectrograph, A., 400.
- Dunaev, A. P., direct determination of orthophosphoric acid in presence of the other acids of phosphorus, A., 880.
determination of phosphorous acid, A., 1010.
- Dunaev, A. P. See also Britzke, E. V.
- Dunbar, C. O. See Holland, E. B.
- Duncan, H. M. See Parsons, (Sir) C. A.
- Duncan, J. F., certain electronic bands of carbon dioxide, A., 11.
- Duncan, P. J., and Universal Oil Products Co., apparatus for dephlegmation, (P.), B., 269.
- Duncan, W. M., disintegrator, (P.), B., 691.
- Duncanson, W. E. See Bailey, V. A.
- Dundon, M. L., and Ballard, A. E., fate of the iodide in the development of bromoiodide emulsions, B., 349.
- Dunez, A. See Lesure, A.
- Dunham, J. L., intensities of vibration-rotation bands with special reference to those of hydrogen chloride, A., 978.
- Dunkel, M., stable states of molecules, A., 525.
- Dunkel, M., and Mark, H., anomalies in weak adsorption, A., 151.
- Dunlap, L. See Morris, S.
- Dunlop Rubber Co., Ltd., Chapman, W. H., and Pounder, D. W., manufacture of goods of rubber or similar material, (P.), B., 522.
- Dunlop Rubber Co., Ltd., Chapman, W. H., Pounder, D. W., and Murphy, E. A., manufacture of goods of rubber or similar material, (P.), B., 1040.
- Dunlop Rubber Co., Ltd., Chapman, W. H., Pounder, D. W., Murphy, E. A., and Purkis, F. T., manufacture of goods of rubber or similar material, (P.), B., 522.
- Dunlop Rubber Co., Ltd., Hayes, C., Madge, E. W., and Jennings, F. C., manufacture of goods of rubber or similar material, (P.), B., 729.
- Dunlop Rubber Co., Ltd., Hayes, C., Madge, E. W., and Lane, F. H., manufacture of goods of rubber or similar material, (P.), B., 830.
- Dunlop Rubber Co., Ltd., Hayes, C., and Murphy, E. A., production of rubber articles, (P.), B., 522.
- Dunlop Rubber Co., Ltd., McKay, R. F., and Madge, E. W., preparation of goods of rubber or similar material from rubber latex or the like, (P.), B., 728.
- Dunlop Rubber Co., Ltd., McKay, R. F., and Thorpe, W. G., manufacture of articles of rubber or similar material, (P.), B., 626.
- Dunlop Rubber Co., Ltd., Murphy, E. A., James, R. G., and Twiss, D. F., manufacture of rubber articles, (P.), B., 471.
- Dunlop Rubber Co., Ltd., Murphy, E. A., and Niven, A., manufacture of organic materials [such as of rubber], (P.), B., 251.
- Dunlop Rubber Co., Ltd., Murphy, E. A., and Owen, E. W. B., manufacture of goods of rubber or similar material, (P.), B., 1040.
- Dunlop Rubber Co., Ltd., Murphy, E. A., Purkis, F. T., and Twiss, D. F., manufacture of rubber articles, (P.), B., 432.
- Dunlop Rubber Co., Ltd., Murphy, E. A., and Trobridge, G. W., production of tubes from aqueous dispersions of rubber, (P.), B., 293.
- Dunlop Rubber Co., Ltd., Murphy, E. A., and Twiss, D. F., coating of metal articles with rubber or similar material, (P.), B., 71.
production of reversible [rubber] latex compositions, (P.), B., 384.
manufacture of goods of rubber or similar material, (P.), B., 626.
direct production of filaments and threads [of rubber, etc.], (P.), B., 1040.
- Dunlop Rubber Co., Ltd., Murphy, E. A., Twiss, D. F., and Thorpe, W. G., manufacture of articles of rubber or similar material, (P.), B., 522.
- Dunlop Rubber Co., Ltd., and Owen, E. W. B., manufacture of rubber or like [seamless, multi-compartment] articles, (P.), B., 959.
- Dunlop Rubber Co., Ltd., and Trobridge, G. W., manufacture of articles of rubber or similar material, (P.), B., 113.
impregnation and coating of fabric with rubber, (P.), B., 339.
manufacture of rubber articles, (P.), B., 432.
- Dunlop Rubber Co., Ltd., Trobridge, G. W., and Murphy, E. A., manufacture of articles from aqueous dispersions containing rubber, gutta-percha, balata, and similar resins, (P.), B., 830.
- Dunlop Rubber Co., Ltd., Trobridge, G. W., Murphy, E. A., Twiss, D. F., and Gorham, W. G., manufacture of [sponge-rubber] articles from dispersions of organic materials, (P.), B., 999.
- Dunlop Rubber Co., Ltd., and Twiss, D. F., manufacture of rubber-coated articles, (P.), B., 729.
- Dunlop Rubber Co., Ltd., Twiss, D. F., and Gorham, W. G., waterproofing compositions [for paper containers], (P.), B., 1147.
- Dunlop Rubber Co., Ltd., Twiss, D. F., and James, R. G., manufacture of articles of rubber and similar substances from aqueous dispersions containing such substances, (P.), B., 918.
- Dunlop Rubber Co., Ltd., Twiss, D. F., Trobridge, G. W., and Gorham, W. G., manufacture of goods of rubber or similar material, (P.), B., 1080.
- Dunlop Rubber Co., Ltd., Wright, J., and Trevaskis, H., painting [rubber] balls and apparatus therefor, (P.), B., 730.
- Dunlop Rubber Co., Ltd., Young, H. C., and Hemm, C., applying and attaching or securing rubber, etc., to metal [by surface coating], (P.), B., 678.
- Dunlop Rubber Co., Ltd., Young, H. C., Warren, F. W., and Toop, F. H., [rubber-bitumen] paving-blocks, (P.), B., 1031.
- Dunn, E. J., jun., microscopical measurements for the determination of particle size of pigments and powders, B., 383.
- Dunn, J. T., and Bloxam, H. C. L., iron kettles tinned with tin-lead alloys, B., 195.
- Dunn, J. T., and Moore, B., pulverised fuel, B., 495.
- Dunn, J. S. See Imperial Chem. Industries, Ltd.
- Dunn, R. T. See Hinkel, L. E.
- Dunnwald, T. J., available phosphorus of soil resulting from moisture and temperature variations, Big Horn Mts., Wyoming, B., 162.
- Dunning, R. G. See Lacy, B. S.
- Dunnington, F. G. See Lawrence, E. O.
- Du Nouÿ, P. L., critical temperature of serum: depolarisation factor and hydration of serum molecules, A., 1006.
- Du Nouÿ. See Doljanski, L.
- Dunsmore, A. F., centrifugal machines, (P.), B., 1097.
- Dunstan, A. E. See Anglo-Persian Oil Co., Ltd.
- Dunworth, J. F., Thomas, J., and Scottish Dyes, Ltd., production of dyes and dye intermediates [benzoylation of aminoanthraquinones], (P.), B., 411.
- Duomarco, J. See Fuentes, B. V.
- Duparc, L., and Galopin, R., variation of optical properties of octa-acetylsucrose in presence of air, A., 1167.
- Duparc, L., Wenger, P., and Cimerman, C., decomposition of manganese nitride by hydrogen, A., 1140.
- Duparc, L., Wenger, P., and Schusselé, W., nitrogenation of chromium, A., 1539.
- Duparc, L., Wenger, P., and Urfer, C., synthesis of ammonia, A., 1139.
- Duparque, A., causes of the differentiation of coals, A., 887.
- Duperier, A., thermal study of the magnetic properties of the rare earths, A., 401.
- Dupire, A. P. H., apparatus for electrolysing chiefly alkaline chlorides, (P.), B., 335.
- Du Plessis, D. J. See Pfeiffer, P.
- Dupont, C., chemical and bacteriological examination of lemonade, B., 881.
- Dupont, G., permanganate oxidation of nopinene; preparation of nopinic acid, A., 1591.
wood as a source of fuel for internal-combustion engines, B., 1010.
- Dupont, G., and Allard, J., mechanism of antioxygenic action, A., 1003.
- Dupont, G., and Barraud, M., composition of American turpentine, B., 248.
- Dupont, G., and Crouzet, J., oxidation of pinene in presence of catalysts, B., 348.
- Dupont, G., and Lévy, J., autoxidation of abietic acid, A., 42, 86, 340.

- Dupont, G., and Lévy, J., autocatalysis in oxidation. II. Action of catalysts on the autoxidation of abietic acid, A., 550.
- Dupont, G., Lévy, J., and Allard, J., mechanism of the action of catalysts on the autoxidation of abietic acid, A., 869.
- autocatalysis in oxidation. III. Mechanism of the action of positive catalysts in the autoxidation of abietic acid, A., 1579.
- Dupont, G., and Soum, M., changes in the wood of pine stumps in the ground after felling, A., 506.
- Dupont, L., action of alkali hydroxides at high temperatures on albuminous substances, A., 233.
- Du Pont Ammonia Corporation. See Larsson, M., Patart, G., and Williams, Roger.
- Du Pont Cellophane Co., Inc. See Church, W. H.
- Du Pont de Nemours & Co., E. I., treatment of casein varnish-finished coated fabrics or articles and products thereof, (P.), B., 111.
- preparation of finely-divided nitroguanidine and similar bodies, (P.), B., 315.
- leuco-compounds of vat dyes, (P.), B., 316.
- catalytic processes of dehydrogenation and dehydration of organic compounds, (P.), B., 361.
- catalytic synthesis of aliphatic alcohols, (P.), B., 361.
- dyeing of textile materials with vat dyes ["triethanolamine" as assistant], (P.), B., 369.
- absorbent paper, (P.), B., 414.
- products derived from soap-forming fatty acids, their glycerides or sulphonic acids, (P.), B., 467.
- organic intermediate compounds and [vat] dyes [of the anthraquinone series], (P.), B., 501.
- paint and varnish remover, (P.), B., 571.
- graining composition, (P.), B., 624.
- coating compositions, (P.), B., 676, 872.
- preparation of [rubberised]-fabric coating composition, (P.), B., 752.
- plastic compositions containing cellulose derivatives, (P.), B., 780.
- preparation of organic mercury compounds and dust disinfectants containing them, (P.), B., 834.
- coating compositions containing *m*-styrene combined with softeners, (P.), B., 872.
- cellulose acetate compositions, (P.), B., 900.
- disinfecting seeds, etc., (P.), B., 924.
- preparation of β -elaeostearin and coating compositions containing it, (P.), B., 957.
- preparation of organic mercuric compounds suitable for use in seed disinfectants, (P.), B., 962.
- alkylation of cellulose, (P.), B., 985.
- [production of esters by] catalytic dehydrogenation, (P.), B., 1058.
- rosin soap lakes of azo-compounds, (P.), B., 1164.
- Du Pont de Nemours & Co., E. I., and Ahlum, C. C., manufacture of explosives, (P.), B., 842.
- Du Pont de Nemours & Co., E. I., and Bergeim, F. H., manufacture of (A) blasting explosive, (B) gelatinised explosive, (C) nitrated sorbitol, (P.), B., 842.
- Du Pont de Nemours & Co., E. I., and Emhardt, J. C., nitro-cellulose composition [for artificial leather], (P.), B., 293.
- Du Pont de Nemours & Co., E. I., and Engelmann, M., [dusting-powders for] disinfecting seeds, (P.), B., 736.
- seed disinfectant, (P.), B., 924.
- Du Pont de Nemours & Co., E. I., and Haines, E. C., [cellulose ester] coating, (P.), B., 997.
- Du Pont de Nemours & Co., E. I., Henning, C. I. B., Burke, C. E., and Reid, E. E., metal salts of phthalic esters; [driers for paints, etc.], (P.), B., 941.
- (A, C) coating compositions; (B) varnish, (P.), B., 957.
- Du Pont de Nemours & Co., E. I., Hitch, E. F., Jordan, H., and Bradley, A. O., disazo-dye and its production, (P.), B., 366.
- manufacture of disazo-dyes, (P.), B., 756.
- Du Pont de Nemours & Co., E. I., and Jordan, H., dyeing of regenerated cellulose materials, (P.), B., 986.
- Du Pont de Nemours & Co., E. I., and Lazier, W. A., catalysts and catalytic processes, (P.), B., 1109.
- Du Pont de Nemours & Co., E. I., and Middleton, E. B., decolorising [cellulosic] film, (P.), B., 762.
- Du Pont de Nemours & Co., E. I., and Nickowitz, M. N., treatment of casein-varnish-finished coated fabrics or articles, (P.), B., 1063.
- Du Pont de Nemours & Co., E. I., and Powers, D. H., vulcanisation of rubber and accelerator therefor, (P.), B., 205.
- Du Pont de Nemours & Co., E. I., and Remelin, F. L., dyeing with vat colours, (P.), B., 986.
- Du Pont de Nemours & Co., E. I., and Sacks, J. H., production of chloro-derivatives of *N*-dihydro-1:2:2':1'-anthraquinoneazine, (P.), B., 410.
- Du Pont de Nemours & Co., E. I., and Schwartz, G. L., production of porous paper, (P.), B., 554*.
- Du Pont de Nemours & Co., E. I., and Taylor, Hugh S., photo-chemical process [of polymerisation], (P.), B., 1015.
- Du Pont de Nemours & Co., E. I., and Thompson, M. S., indanthrene compound and its manufacture, (P.), B., 136.
- Du Pont de Nemours & Co., E. I., and Ward, W. H., low-velocity ammonia-dynamite, (P.), B., 533.
- Du Pont de Nemours & Co., E. I., and Wrightsman, P. G., manufacture of nitrated sugar explosives, (P.), B., 842.
- manufacture of nitrated carbohydrate explosive, (P.), B., 842.
- Du Pont Rayon Co., twisting of rayon threads, (P.), B., 415.
- Du Pont Rayon Co., and Henningsen, C., manufacture of rayon of increased whiteness from viscose, (P.), B., 504.
- Du Pont Rayon Co. See also Lardy, G.
- Du Pont Viscoid Co., decorated [toilet] articles and their manufacture, (P.), B., 280.
- manufacture of [laminated] safety glass, (P.), B., 820.
- Durand & Huguenin Société Anonyme, production of fast dyeings and prints by means of [water-soluble ester of] vat dyes, (P.), B., 320.
- manufacture of dyes [galloxyaniline derivatives], (P.), B., 502.
- manufacture of basic dyes [of the acridine series], (P.), B., 604.
- production of coloured discharge effects on dyed goods, (P.), B., 815.
- dyeing and printing textile goods, etc. [with solubilised vat dyes], (P.), B., 902.
- dyeing and printing with [leuco-ester] vat dyes, (P.), B., 902.
- dyeing of animal fibres, (P.), B., 1062.
- Durand & Huguenin Société Anonyme, and Livingston, J. C., production of fast dyeings and prints [with indigosols, etc.], (P.), B., 902.
- Durand & Huguenin Société Anonyme. See also De Niederhäusern, G., and I. G. Farbenind. A.-G.
- Durener Fabrik präparierter Papiere Renker & Co. See Renker, M.
- Durgan, E. S. See Pease, R. N.
- Durgin, C. B., Logue, P., and Federal Phosphorus Co., manufacture of [abrasive] material comprising anhydrous calcium sulphate and calcium pyrophosphate, (P.), B., 1067.
- Durham, E. J. See Scott, A. F.
- Durier. See Lenglen.
- Duriez, A. See Bernier, M.
- Duriez, F. See Bernier, M.
- Durio, F. See Ponzio, G.
- Durnford, A. M. I. A. W. See McLennan, J. C.
- Durnin, J. V. See Uhle, D. J.
- Durr, A. H. V., and Compagnie Nationale de Matières Colorantes & Manufactures de Prod. Chim. du Nord Réunies, Etabl. Kuhlmann, preparation of resinous condensation products, (P.), B., 625.
- Durrer, R., Siemens, F. C., Sprenger, A., and Siemens A.-G., F., production of steel in an open-hearth furnace, (P.), B., 515*.
- Durrshmidt, G., porous material for filters, etc., (P.), B., 170.
- Durst, G., Doublé [metal] as a constructional material for apparatus, B., 15.
- Dushechkin, A. I., forms of phosphorus in the soil and response of soils to phosphate fertilisers, B., 630.
- Dushman, S. See Gen. Electric Co.
- Dusseau, A., chlorophyll of wheat leaves, A., 258.
- Dutcher, R. A. See Honeywell, H. E.
- Duthey, M. See Schuette, H. A.
- Du Toit, M. M. S., and Page, H. J., carbon and nitrogen cycles in the soil. III. Formation of natural humic matter, B., 875.
- Dutoit, P., and Zbinden, C., spectrographic analysis of the ash of organs, A., 363.
- Dutt, A. K. See Deb, S. C.
- Dutt, D. M. See De, S. C.
- Dutt, E. See Helbrunner, A.
- Dutt, G. R., and Puri, A. N., storage of food-grain, B., 528.
- Dutt, N. L., and Ayyar, K. V. G., chemical composition and enzymes of sugar-cane pollen, A., 827.
- Dutt, S., fluorescence in organic compounds, A., 1345.

- Dutt, S. See also Dikshit, B. B. L.
 Dutt, S. C. See Ghosh, J. C.
 Dutt, S. K. See Deodhar, D. B.
 Dutte, K. See Wassermeyer, H.
 Duval, A. J. P. See Aubert, P. F. M., and Aubert & Duval Frères.
 Duval, C., cobaltic cobaltcarbonate, A., 1540.
 Duval, H. A. M. See Aubert, P. F. M., and Aubert & Duval Frères.
 Dux, W., manufacture of shellac substitutes, (P.), B., 26.
 Dwight & Lloyd Metallurgical Co. See Hyde, R. W., and Lloyd, R. L.
 D'Yarmett, E. C., and Fractionator Co., heat treatment of hydrocarbon oils, (P.), B., 133.
 Dyckerhoff, H. See Grassmann, W.
 Dyer, E. See Hahn, D. A.
 Dyer, F. C., and McClelland, H. L., porous medium for flotation cells, B., 743.
 Dyer, H. T. See Peabody Eng. Corp.
 Dyer, P. E., and Hannah, J. McK., photographic films, (P.), B., 264.
 Dyke, W. J. C., Davies, W. C., and Jones, W. J., interaction between alkyl Grignard reagents and antimony trichloride, A., 587.
 Dyke, W. J. C., and Jones, W. J., organic antimonial compounds. II, A., 1421.
 Dykstra, H. B., Lewis, J. F., and Boord, C. E., nuclear synthesis of unsaturated hydrocarbons. I. 4a-Olefines, A., 1269.
 Dynamit Aktien-Gesellschaft vorm. A., Nobel & Co., and Reuter, R. O., manufacture of trinitrotoluene, (P.), B., 265.
 Dyrssen, W., and Blaw-Knox Co., heat-exchanger, (P.), B., 352.
 Dyrssen, W. See also Milliken Bros. & Blaw-Knox, Ltd.
 Dyson, G. M., physiological aspects of the essential oils, B., 883.
 Dyson, G. M., and Renshaw, A., manufacture of salts of the urea of *m*-aminobenzoyl-*m*-amino-*p*-toluyl-1-naphthylamine-4:6:8-trisulphonic acid, (P.), B., 276.
 Dziedicki, M., formation and spectrum of mercury hydride, A., 45.
 Dziengel, K. See Hess, K.
 Dziwowski, K., Auerbach, J., and Moszew, J., *peri*-benzoyl and -benzyl derivatives of naphthalene, A., 606.
 Dziwowski, K., Baraniecki, C., and Sternbach, L., preparation of thioindigo dyes. I. Synthesis in the naphthalene series, A., 1593.
 Dziwowski, K., and Moszew, J., synthesis of acetyl derivatives of 1-benzyl-naphthalene. I. 4-Acetyl-1-benzyl-naphthalene, A., 917.
 Dziwowski, K., Moszew, J., Lepiankewicz, S., and Sucheni, L., 1:4-dibenzyl-naphthalene and its corresponding keto-derivatives, A., 763.
 Dziwowski, K., and Obtulowicz, A., 2-benzoylfluorene; synthesis of 2:7-dibenzoylfluorene, A., 1586.
 Dziwowski, K., and Reiss, J., keto-oxidation product of α -acetyl-acenaphthene, A., 917.
 Dziwowski, K., and Russocki, M., diphenylamine derivatives, A., 336.
 Dziwowski, K., Schoenöna, (Mlle.) J., and Glazneröna, (Mlle.) A., derivatives of 3-bromoacenaphthene, A., 600.
 Dziwowski, K., and Waszkowski, T., 1-methylnaphthalene derivatives, A., 336.
- E.
- E.M.F. Electric Co. Proprietary, Ltd. See Whiting, G. A.
 E.M.S. Industrial Processes, Ltd., Stokes, R. A., and Roberts, E. G. L., evaporation of liquids, (P.), B., 845.
 apparatus for heat-treatment of metalliferous materials [roasting furnace], (P.), B., 913.
 E.M.S. Industrial Processes, Ltd. See also Salerni, E. M.
 Eadie, G. S., comparison of the glycogenolytic responses to adrenaline administered by the subcutaneous and intravenous routes, A., 117.
 Eadie, R. G. W., tar works' emulsions, B., 129.
 Eagle, A., and Ferguson, R. M., coefficient of heat transfer from the internal surface of tube walls, B., 843.
 Eagle, H. See Michaelis, L.
 Eakle, A. S., probertite, A., 570.
 Earl, J. C., transformation of diazoamino- into aminoazo-compounds, A., 1280.
 Earl, J. C. See also Arneman, W. G., and Chalmers, J.
 Easley, M. A. See Forsythe, W. E.
 Easter, S. S. See Willaman, J. J.
 Easterfield, T. H., and Bruce, J. A., occurrence of xanthine calculi in New Zealand sheep, A., 1058.
 Easterfield, T. H., Rigg, T., and Bruce, J. A., Pakihi lands of the Nelson Province, B., 340.
 Eastman, N. J. See Stauder, H. T.
 Eastman Kodak Co., removal of water from aqueous acetic acid, (P.), B., 602.
 Eastman Kodak Co. See also Beal, C. L., Carroll, S. J., Clarke H. T., Hickman, K. C. D., and Van Derhoff, H. E.
 Eastwood, F. M. See Baker, W.
 Eaton, A. C., and International Kreemaka Co., Ltd., emulsifiers, mixers, etc., (P.), B., 537.
 Eaton, B. J., factory economics in the preparation of raw rubber, B., 431.
 Eaton, B. J., and Fullerton, R. G., "dry rubber" content of latex from deep and shallow tapping, B., 111.
 effect of damp storage on raw rubber, B., 111.
 identification and determination of the yellow pigment of raw rubber, B., 112.
 Eaton, F. M., cell-sap concentration and transpiration related to age and development of cotton leaves, A., 965.
 Eaton, J. See Brit. Thomson-Houston Co., Ltd.
 Eaton, J. C. See Cumming, W. M.
 Ebel, A., toxin of the gas-gangrene bacillus. I., A., 1623.
 Ebeler, L., and Hiedemann, E., "carrier" of the hydrogen striæ, A., 1083.
 Ebeling, A., and Adam, H., purity of lead at the time of the Nativity, B., 464.
 Ebeling, A. H., and Corey, R. B., apparatus for the study of respiratory quotient and basal metabolism of mice, A., 828.
 Ebeling, I., metallic reflexion. III. Optics of alkali halide deposits on glass. I., A., 18.
 Eberhard, R., production of humous colloids, (P.), B., 705.
 Eberle, A. See Bauer, K. H.
 Ebert, F. See Ruff, O.
 Ebert, H. H., sulphur in cast iron, B., 950.
 Ebert, L., and Lange, J., dependence of the osmotic coefficient on the structure of the ions. II. Thermo-electric apparatus for measurement of f.p. depression in dilute solutions of electrolytes, A., 1251.
 Eccles, A., and McCulloch, A., action of chlorine on coal, B., 933.
 Eccott, E. N., and Linstead, R. P., isomerism of the butylideneacetones, A., 893.
 Eckardt, A., deceleration of hydrogen canal rays by transmission through solid bodies, A., 974.
 Eckardt, K. See Haller, R.
 Eckart, C., calculation of energy values, A., 1234.
 theory and calculation of screening constants, A., 1491.
 Eckart, C. See also Hughes, D. S.
 Ecker, A., irregular distribution of acid in a sulphite [pulp] digester, B., 608.
 Eckersley, T. L., recombinations of electrons and positive ions in the upper atmosphere, A., 658.
 Eckert, A., and Granzmüller, J., 9-amino-fluorene, A., 81.
 Eckert, F., feeding and forming glass, (P.), B., 863.
 Eckert, W. See Gen. Aniline Works, Inc.
 Eckl, K., "huminit," B., 1001.
 Eckling, K., and Kratky, O., mechanism of the deformation of fibres, B., 1021.
 Eckstein, H. C., and Wile, U. J., lipins in xanthoma, A., 1059.
 Eckstein, L., and Freeman, L. M., spectrum of exploding lithium wires, A., 1328.
 Eclipse Textile Devices, Inc., and Hasbrouck, L. B., dyeing apparatus, (P.), B., 238.
 Economy Fuse & Manufacturing Co. See Cherry, O. A., Coleman, R. E., and Kurath, F.
 Economy Metal Products Corporation. See Stevenson, F. A.
 Eda, G., effect of ergotamine on the threshold of sugar excretion, A., 370.
 Eddington, A. S., charge of an electron, A., 10.
 interaction of electric charges, A., 518.
 Eddy, C. E., and Laby, T. H., quantitative analysis by X-ray spectroscopy, A., 724.
 Eddy, C. E. See also Laby, T. H.
 Eddy, N. B., effect of repeated administration of diethylbarbituric acid and cyclohexenylethylbarbituric acid, A., 110.
 excretion of diethylbarbituric acid during its continued administration, A., 110.

- Eddy, W. H., Gurin, S., and Keresztesy, J., Williams-Waterman vitamin-B₃, A., 1222.
- Eddy, W. H. See also Kramer, M. M., and Kohman, E. F.
- Edeleanu, L., and Edeleanu Ges.m.b.H., decolorisation of petroleum hydrocarbon distillates; manufacture of lubricating oils, (P.), B., 1057*.
- Edeleanu, L., and Grote, W., anti-knock fuels, B., 802.
- Edeleanu Ges.m.b.H. See Edeleanu, L.
- Edelhäuser, determination of sand in rice flour, B., 262.
- Edelman, P. E., and Banning, E., polarising electrolyte [for rectifiers or condensers], (P.), B., 21.
- Edelmann, E. O. See Swann, S., jun.
- Edelstein, V., disturbing effects in the determination of the decolorising power of active carbons, B., 541.
- Eder, J. M., actinic strength and spectrum temperature of magnesium ribbon burning in air and of magnesium flash-light, A., 388.
- Eder, R. See Soc. of Chem. Ind. in Basle.
- Edfeldt, O., Nordh, G., and Swaetichin, T., existence of two components in malt diastase, A., 1216.
- Edgar, G., and Calingaert, G., determination of sulphur in gasoline, B., 402.
- Edgar, S. H. See Parsons, L. G.
- Edgcombe, L. T. See King, J. G.
- Edge, S. R. H., rosin sizing [of paper], B., 759.
- Egerton, L. B., and Philadelphia Quartz Co., apparatus for dissolving sodium silicate, (P.), B., 1109.
- Edgeworth-Johnstone, R., electrolytic cell, (P.), B., 65*.
- Ediger, N. J. See Alcock, A. W.
- Edison, T. A. See Brit. Thomson-Houston Co., Ltd.
- Edlaud, L. A. See Somerville, A. A.
- Edlbacher, S., and Kraus, J., intermediary metabolism of histidine. II., A., 1619.
- Edlén, B., and Ericson, A., condensed spark spectra in the extreme ultra-violet to 88 Å., A., 263.
- hydrogen-like spectra of lithium and beryllium in the extreme ultra-violet, A., 263.
- spectrum of aluminium [and of other elements] in the extreme ultra-violet, A., 264.
- lithium-like spectra of carbon, nitrogen, and oxygen, C iv, N v, and O vi, A., 1226.
- Edlén, B. See also Ericson, A.
- Edmonds, W. J., and Commercial Solvents Corporation, butyl [alcohol]-lactonic fermentation process, (P.), B., 164*.
- Edwards, G. P. See Ruchhoff, C. C.
- Edwards, H. T. See Bock, A. V., and Henderson, L. J.
- Edwards, J. D., and Mason, R. B., alumina production in its present-day aspects, B., 54.
- producing alumina by acid and electrothermal processes, B., 141.
- Edwards, K. B., and Lacey, R., use of calcium chloride in the dehydration of alcohol, B., 1057.
- Edwards, P. W., and Harrison, R. W., apparatus for the determination of ignition temperature of powder substances, A., 1152.
- Edwards, R. S., air-permeability of leather, B., 999.
- Edwards, W. A. M. See Simon, F.
- Edwards, W. R., jun., and Reid, E. E., preparation of cyclopentane derivatives, A., 1286.
- Edwin, C. F. See Siemens Bros. & Co., Ltd.
- Eegriwe, E., sensitive colour reactions for cobalt, A., 1547.
- Eekhout, F. C. van, method of Uglov and Schapiro for determination of caffeine in tea, B., 683.
- Eesti Patendi Aktsiaselts, closing shutters for tunnel ovens, (P.), B., 494.
- apparatus for the dry distillation and method for the preliminary drying of bituminous materials, (P.), B., 935.
- Eesti Patendi Aktsiaselts, and Kulzinski, M., construction of wagons and rails, applied in ovens for dry distillation, dryers, kilns, and similar ovens working by means of gas and vapour injections or circulations, (P.), B., 539.
- Effront, J., amylose, A., 895.
- Effront, J. See also Boidin, A.
- Efimov, V. V., movement of ions in gelatin gels and in the nerve substance. I. Rate of movement, under the influence of direct electric current, of hydroxyl and hydrogen ions in gelatin gels of varying concentration. II. Absolute velocity of hydroxyl ions in nerve substance. III. Temperature coefficient of the rate of movement of hydroxyl ions in gelatin gels compared with the temperature coefficients of various phases of the process of stimulation in nerve and muscle, A., 809.
- Efimov, V. V., movement of ions in gelatin gels and in the nerve substance. VI. Thickness and nature of the semipermeable membranes of irritable tissue; calculation of length of path of ions in the first phase of stimulation, A., 1613.
- Efimov, N. N., and Veselovski, A. A., bromine content of Solikamsk carnallites, A., 1015.
- Ege, R., and Oklitz, E., stability of pytaline at various dilutions, A., 813.
- Egeling, determination of ammonia in synthetic ammonia solution, B., 371.
- Eger, G., electrolytic preparation of zinc, B., 15, 616.
- Egerton, A. C., catalytic reactions at high pressures, A., 868.
- constant-temperature device, A., 883.
- Egerton, A. C., and Asiatic Petroleum Co., Ltd., non-knocking motor fuel, (P.), B., 894*.
- Egerton, A. C., and Ubbelohde, A. R., automatic low-temperature thermostat (cryostat), A., 729.
- Egg Patents, Ltd. See Milroy, A.
- EGGE, W. S. See Long, J. S.
- Eggenschwiler, C. E. See Staples, E. M.
- Eggensperger, K. See Kaiser, H.
- Eggert, J., relationship between particle size and the sensitivity of photographic emulsions towards X-rays, A., 1384.
- Eggert, J., and Luft, F., structure of B-cellulose, A., 896.
- Eggert, J. See also Arens, H.
- Eggerth, A. H., germicidal action of hydroxy-soaps, A., 116.
- Eggleston, W. W., Black, O. F., and Kelly, J. W., botanical and chemical study of *Bikukulla eximia*, with a key to the North American species of *Bikukulla*, A., 122.
- Eggleston, W. W. See also Black, O. F.
- Eggleton, G. P., and Eggleton, P., determination of phosphagen and other phosphorus compounds in muscle-tissue, A., 109.
- Eggleton, P. See Eggleton, G. P.
- Egler, A. G., [jarring mould device for] production of sound ingots, (P.), B., 773.
- Egloff, G., Benner, H. P., and Universal Oil Products Co., apparatus for pressure-distilling [hydrocarbon] oils, (P.), B., 231.
- apparatus for treating [hydrocarbon] oil, (P.), B., 231.
- apparatus for cracking oil, (P.), B., 1141.
- Egloff, G., Faragher, W. F., and Morrell, J. C., stabilisation of the knock value, gum content, and colour of gasoline by chemical inhibitors, B., 750.
- Egloff, G., Lowry, C. D., jun., and Schaad, R. E., cracking, B., 543.
- Egloff, G., Morrell, J. C., and Universal Oil Products Co., conversion of hydrocarbon oils, (P.), B., 180.
- cracking of hydrocarbons, (P.), B., 1013.
- Egloff, G., and Nelson, E. F., anti-knock motor fuels from Pennsylvania oil, B., 357.
- Egloff, G., Schaad, R. E., and Lowry, C. D., jun., decomposition of the paraffin hydrocarbons, A., 1268.
- Egloff, G., and Universal Oil Products Co., treatment of hydrocarbons, (P.), B., 231.
- conversion of petroleum, (P.), B., 701.
- cracking of [hydrocarbon] oil, (P.), B., 701.
- Egloff, G. See also Morrell, J. C.
- Egorov, M. A., conditions of application and the effect of phosphate on chernozem. VIII. Reversion, B., 784.
- Egorova, O. I., action of oxides of nitrogen on ethers. II. Action of nitrogen peroxide on mixed aliphatic-aromatic ethers, A., 1574.
- Egyesült Izzolampa és Villamossági Részvénytársaság, [electrode for] electric-discharge tubes, (P.), B., 1117.
- Ehlers, V. M., sewage effluent standards, B., 304.
- Ehlinger, A. See Sans, J.
- Ehman, R. G. See Parmelee, C. W.
- Ehmann, E. A., origin of the Württemberg bean-ores, A., 1397.
- Ehmcke, V., influence of nickel and manganese on the properties of high-speed tool steel, B., 909.
- Ehre, J., binding medium, (P.), B., 192.
- Ehrenberg, P., hot fermentation of stall manure, B., 209.
- Ehrenberg, R., radiometric microanalysis; sulphide determination and oxidimetry, A., 1542.
- radiometric micro-determination of [blood]-sugar, A., 1607.
- Ehrenberg, W., and Hermann, C., space-group of potassium sulphate, A., 139.
- Ehrenfest, P., diamagnetism of solid bismuth, A., 141.
- Ehrenfest, P., and Rutgers, A. J., thermodynamics and kinetics of thermo-electric phenomena in crystals, especially the Bridgman effect. II., A., 142.

- Ehrenhaft, F., magnetophotophoresis and electrophotophoresis, A., 417.
- Ehrenhaft, F., Reiss, M., and Wasser, E., magnetophotophoresis and electrophotophoresis, A., 697.
- Ehrenhaft, F., and Wasser, E., resistance to motion through gases of metallic particles of high density, A., 392.
- Ehrenreich, A., preparation of leather, (P.), B., 629*.
- Ehrenreich, A., treatment of fish skins, (P.), B., 733*.
- Ehrenreich, A., and Tandler, R., leather and its production, (P.), B., 874.
- Ehrenthal, B. P. von, and Scholz, K., bleaching or otherwise treating fibrous material, (P.), B., 1064.
- Ehrentauf, G., manufacture of a durable coating composition [for wood, masonry, etc.], (P.), B., 328.
- Ehret, W. F., and Fine, R. D., crystal structure in the system copper-bismuth, A., 1503.
- Ehrhardt, E. F. See Soc. des Usines Chim. Rhône-Poulenc.
- Ehrhardt, F. See Debye, P.
- Ehrhardt, R., continuously-operating saturation vessel, (P.), B., 87.
- Ehrhart, E. N., refining of sugar, (P.), B., 211*.
- Ehrhart, E. N., and Naugle, J. J., refining of sugar, (P.), B., 30.
- Ehrlich, F., pectin and its relation to the formation of the incrustations of cellulose. I. and II., A., 1163.
- Ehrlich, G. See Lieben, F.
- Ehrlich, V. See Stickstoff-Werke A.-G. Ruse.
- Eibeler, H. See Grassmann, W.
- Eibl, A. See Haitinger, M.
- Eibner, A., drying of [fatty] oils, B., 25.
- Eibner, A., wet process of production of vermilion, fast to light, from its elements, (P.), B., 111.
- Eibner, A., and Rossmann, E., tung oil. VI., B., 429.
- Eichenberg, G. See Bulle, G.
- Eichenberger, E. See Ruzicka, L.
- Eichengrün, A., fireproofing of wood and similar material, (P.), B., 61.
- Eichengrün, A., working-up of cellulose derivatives, (P.), B., 138.
- Eichengrün, A., swelling of cellulose esters, B., 552.
- Eichholtz, F., system of biological heavy metal reagents, A., 499.
- Eichholtz, F., and Berg, R., determination of magnesium in blood, A., 1607.
- Eichler, H., azo-dyes of phenolphthalein as indicators in acidimetry and alkalimetry. I., A., 180.
- Eichler, H., Endres, G., Gminder, G., Mezger, O., and Umbrecht, J., use of benzoic acid and sodium benzoate as ingredients of fresh sausages and fresh minced meat, B., 529.
- Eichler, O., pharmacology of the Hofmeister series, A., 1618.
- Eichstädt, A., emulsions. I. Conditions for formation of various types of emulsion from fat and skim milk and the effect of emulsifying media on milk-in-fat emulsions, B., 880.
- Eichstädt, A. See also Mohr, W.
- Eichwede, H. See General Aniline Works, Inc.
- Eide, A. E., and Hassel, O., electric moments of some organic molecules in benzene solution, A., 1347.
- Eidinow, A., effect of irradiation on cobra venom and antivenin, A., 1215.
- Eigenberger, E., isoprenesulphonic, A., 1405.
- Eiger, A., utilisation of the steam produced in the manufacture of cement by the wet method, (P.), B., 327.
- Eilender, W., and Wasmuth, R., precipitation hardening of iron, B., 716.
- Einecke, E. See Fischbeck, K.
- Einhorn, G., Milski, A., and Kalashnikov, E., oil of cucumber seeds, B., 777.
- Einstein, O., and Borchert, H., method of determining concentrations of colloidal solutions; (use of Tyndall effect), A., 156.
- Einstein, W. I. See Einstein, I.
- Eirich, F., and Pauli, W., general colloid chemistry. XXV. Constitution of colloidal gold, A., 412.
- Eisenack, A. See Plonait, G.
- Eisenberg-Hamburg, B., influence of strontium salts on the movements of *Paramacium caudatum*; the rôle of calcium salts and of hydrogen-ion concentration, A., 953.
- Eisenbrand, J., new interpretation of the electrocapillary curves of thallium amalgam, A., 30.
- Eisenbrand, J., determination of dissociation constants of fluorescing substances by quantitative fluorescence measurements, A., 34.
- Eisenbrand, J., use of light of short wave-length in quantitative chemical investigations; "strong" and "weak" fluorescences and new fluorescence reactions, A., 1259.
- Eisenbrand, J., and Halban, H. von, light absorption of nitrophenols. I. Weakly alkaline aqueous solutions, A., 272.
- Eisenbrand, J., light absorption of nitrophenols. II. In acid solutions (and in organic solvents). III. In concentrated salt and alkali solutions, A., 395.
- Eisenbrand, J. See also Halban, H. von.
- Eisengiesserei & Maschinenfabrik Mosebach & Sohn, drying of powdered gypsum in cylindrical drums, (P.), B., 324.
- Eisenhut, O., and Conrad, R., decomposition and formation of hydrocarbons in discharge tubes by means of canal rays, A., 1385.
- Eisenhut, O., and Kaupp, E., iron-nitrogen system; X-ray investigation, A., 996.
- Eisenhut, O. See also I. G. Farbenind. A.-G.
- Eisenmenger, W. S., toxicity of some aliphatic alcohols [to plants], A., 1326.
- Eisenreich. See Widawski, E.
- Eisenschimmel, W. See Beutler, H.
- Eisenschitz, R., and London, F., relation of van der Waals forces to homopolar binding forces, A., 525.
- Eisenschmidt, W., and Koop, H., combustible matter in brown coal, B., 4.
- Eisenschmidt, W., calculation of the net calorific value of strongly bituminous brown coals, B., 540.
- Eishold, K. See Gen. Aniline Works, Inc.
- Eisl, A., ionisation of air by cathode rays of 10-60 kilovolts, A., 5.
- Elsler, B., and Schittenhelm, A., influence of thyroxine on the blood-iodine in myxedema, A., 1059.
- Eismayer, G., and Quincke, H., oxygen consumption, carbon dioxide and lactic acid production of the heart under various conditions of work, A., 494.
- Eismayer, G., and Quincke, H., metabolism of cold-blooded animals. IV. Effect of oxygen and insulin on the gaseous exchange of the heart, A., 646.
- Eisner, H., substitute for amalgamation in testing bituminous materials for m. p., ductility, and float test, B., 595.
- Eissner, W., colorimetric determination of novocaine and anæsthesin with β -naphthol, B., 792.
- Eistert, B. See Pfeiffer, P.
- Eitel, W., Herlinger, E., and Trömel, G., crystal chemistry of the aluminosilicates; relationship of the anorthite group to the nepheline group, A., 1241.
- Eitel, W., and Trömel, G., rare-earth silicates of the nepheline and anorthite type, A., 1352.
- Ekefors, E., arc spectrum of nitrogen, A., 1074.
- Ekefors, E., spectra in the extreme ultra-violet, A., 1225.
- Ekeley, J. B., and Fulmer, J. M., action of guanidine carbonate and benzamidine hydrochloride on glyoxal sodium hydrogen sulphate, A., 928.
- Ekeley, J. B., and Mattison, I. H., fluoran from copper phthalate, A., 1442.
- Ekelund, S. C. G., process and furnace for extracting metals from ores, (P.), B., 618*.
- Ekhard, W., determination of the adhesive power of starch by Saare's method, B., 260*.
- Eki, K. T., movement of sugar from the blood-corpuscle into the blood-plasma, A., 802.
- Ekkert, L., reactions of atropine and some related compounds, A., 623.
- Ekkert, L., reactions of antipyrine, A., 617.
- Ekkert, L., reactions of antifebrin and phenacetin, A., 629; B., 1168.
- Ekkert, L., reactions of adrenaline, A., 1053.
- Ekkert, L., reactions of novocaine, A., 1053; B., 439.
- Ekkert, L., reactions of thiophen, A., 1460.
- Ekkert, L., reactions of homatropine and novatropine, A., 1461.
- Ekkert, L., colour reactions of essential oils, B., 440.
- Ekkert, L., reactions of α - and β -naphthol, B., 855.
- Ekkert, L., reactions of sulphonal and trional, B., 965.
- Ekkert, L., reactions of morphine and other opium alkaloids, B., 966.
- Ekwall, P., and Mylius, W., acid sodium laurates, A., 65.
- Elakov, J. S. See Ivanov, S.
- Elam, C. F., diffusion of zinc in copper crystals, A., 536.
- Elbe, G. von, and Simon, F., calorimetric determination of the difference of energy content of the two modifications of hydrogen, A., 144.
- Elbe, G. von. See also Wohl, K.
- Elbert, W. See Haselhoff, E.
- Elder, A. L. See Holmes, H. N.
- Elder, L. W., jun., pH measurement with the glass electrode and oscillating-valve potentiometer, A., 50.

- Elder, *L. W., jun.*, comparison of certain hydrogen-ion indicator electrodes in the presence of ferric iron, A., 565.
- Electric Furnace Co., Ltd., and Campbell, *D. F.*, electric [induction] melting furnaces, (P.), B., 200.
- Electric Furnace Co., Ltd., and Hirsch, Kupfer- & Messing-werke Akt.-Ges., electric melting furnace, (P.), B., 21.
- annealing of metal bands, (P.), B., 721.
- Electric Furnace Co., Ltd., and Millar, *W. J.*, [electric] tunnel or enamelling pottery kilns, (P.), B., 419.
- Electric Furnace Co., Ltd. See also Cope, *F. T.*, Millar, *W. J.*, and Tama, *C.*
- Electric Smelting & Aluminium Co. See Cowles, *A. H.*
- Electrical Research Products, Inc., and Elmen, *G. W.*, magnetic [core] materials, (P.), B., 202.
- Electrical Research Products, Inc., and Mason, *S. R.*, manufacture of chromium articles, (P.), B., 19.
- Electro Co. See Arnold, *C. E.*, and Moxham, *A. J.*
- Electro Dialyzer Corporation. See Cabrera, *C. T.*
- Electro Material, Hinstin, *P.*, and Lehmann, *A.*, [heating of electrodes of electric] discharge tubes, (P.), B., 152.
- Electro Metallurgical Co., and Kinzel, *A. B.*, case-hardening [steel] by nitrogenisation, (P.), B., 1033.
- Electro Metallurgical Co. See also Becket, *F. M.*, Corson, *M. G.*, George, *H. S.*, Kinzel, *A. B.*, Miller, *W. B.*, Norwood, *S. M.*, and Read, *W. C.*
- Electro Metallurgical Ore Reduction, Ltd. See Wilder, *F. L.*
- Electroflo Meters Co., Ltd. See Bridges, *J.*
- Electrolux, Ltd., and Lenning, *A.*, absorption refrigerating systems, (P.), B., 1009.
- Electrolux, Ltd., Lenning, *A.*, and Taylor, *R. S.*, [absorption] refrigeration [apparatus], (P.), B., 1098.
- Electrolux, Ltd., and Platen-Munters Refrigerating System Aktiebolag, treatment of aluminium or other light metals [to prevent corrosion], (P.), B., 20.
- liquid-distributing devices for gas absorption and similar apparatus, particularly for refrigerating, (P.), B., 225.
- absorption refrigerating apparatus, (P.), B., 846.
- liquid-circulating devices for absorption refrigerating apparatus; refrigerating apparatus, (P.), B., 696.
- cooling systems, (P.), B., 1098.
- Electrolux, Ltd., and Taylor, *R. S.*, refrigerators for cooling liquids, (P.), B., 1098.
- Electrolux, Ltd. See also Clark, *W. E. N.*
- Electrolux Servel. See Tandberg, *J. G.*
- Electro-Motive Co. See Dilworth, *R. M.*
- Elektrische Gasreinigungs Ges.m.b.H., and Rohmann, *H.*, electrical gas-purification process, (P.), B., 246, 290.
- Elektrische Glühlampenfabr. "Watt" Aktien Gesellschaft, matting the interior surface of hollow glass bodies, (P.), B., 145.
- Elektrizitätswerk Lanza, purification of aluminium and its alloys, (P.), B., 151.
- Elektrizitätswerk Lanza (Gampel & Basel), and Lüscher, *E.*, fertiliser, (P.), B., 297.
- Elektro-Chrom-Ges.m.b.H., protective coatings of chromium, (P.), B., 290, 721.
- electrodeposition of chromium, (P.), B., 721.
- Elenbaas, *W.*, intensities of lines in the helium spectrum as a function of the pressure and electron velocity. II., A., 387.
- Elenbaas, *W.* See also Ornstein, *L. S.*
- Elford, *H. J.*, structure in very permeable collodion gel films and its significance in filtration problems, A., 688.
- Elhardt, *W. E.*, effect of ethyl alcohol on the growth of chicks, A., 639.
- Elias, *H.*, and Fell, *B.*, critical blood-sugar, A., 944.
- Eliasberg, *P.*, butyric acid fermentation, A., 959.
- semicarbazide method for the detection of pyruvic acid in alcoholic fermentation, A., 1218.
- Eliasberg, *P.* See also Kostytshev, *S.*
- Eliashevich, *M.*, and Terenin, *A.*, fluorescence of mercury vapour in the far ultra-violet, A., 977.
- Elion, *L.*, biochemistry of breadmaking, B., 528.
- El Kelaney, *M. A.*, and Searle, *G. O.*, chemical sectioning of plant fibres, A., 1224.
- Elkins, *H. B.* See Titus, *A. S.*
- Ellburg, *J.* See Lundin, *H.*
- Elleder, *H.*, practical significance of soil research with special reference to phosphates and the methods of Neubauer and Lemmermann, B., 630.
- p_H determinations [of soil] in water and potassium chloride solutions, B., 734.
- Eller, *W. H.*, photoconductivity in dielectric liquids, A., 398.
- Ellett, *A.*, effect of hyperfine structure due to nuclear spin on polarisation of resonance radiation, A., 652.
- Ellinger, *F.*, absorption spectrum of histidine and histamine in the ultra-violet, A., 272.
- origin of light erythema, A., 638.
- formation of a histamine-like substance from histidine under ultra-violet irradiation, A., 1472.
- Ellinghouse, *R. J.*, apparatus for emulsifying, homogenising, and mixing liquids with fats, soluble and insoluble powders, etc., (P.), B., 3.
- Ellington, *G. W.* See Back, *E. A.*
- Elliot, *G.*, spraying apparatus, (P.), B., 225.
- Elliott, *T. G.* See Hadfield, *(Sir) R.*
- Elliott, *A.*, absorption band spectrum of chlorine. II., A., 977.
- isotope effect in the spectrum of boron monoxide; intensity measurements and structure of the β -bands, A., 1232.
- analysis of the β -bands of boron monoxide, A., 1342.
- Elliott, *K. A. C.*, catalysis of the oxidation of cysteine and thioglycollic acid by iron and copper, A., 869.
- Elliott, *K. A. C.* See also Dixon, *M.*
- Elliott, *W. S.*, degasification of liquids, (P.), B., 126.
- de-aeration and evaporation of liquid, (P.), B., 1009.
- Elliott Co. See Bergquist, *H.*
- Ellis, *A. G.*, Diggle, *H.*, and Associated Electrical Industries, Ltd., gas-treating devices for enclosed electrical apparatus, (P.), B., 152.
- Ellis, *C. P.*, and Aston, *G. H.*, absolute intensities and internal conversion coefficients of the γ -rays of radium-B and -C, A., 1339.
- Ellis, *D.*, and Stoddart, *J. H.*, chemical changes in pools containing vegetable remains infected with sulphur bacteria, A., 569.
- Ellis, *E. E.*, sintering apparatus, (P.), B., 196.
- Ellis, *E. M.* See Case, *G. O.*
- Ellis, *G. H.*, and Celanese Corporation of America, colouring of products comprising cellulose acetate, (P.), B., 186*.
- treatment [dyeing] of cellulose derivatives, (P.), B., 238*.
- treatment of [dyed materials of] cellulose acetate, (P.), B., 238*.
- treatment of materials containing cellulose derivatives, (P.), B., 555*.
- Ellis, *G. H.*, Mann, *R. J.*, and Celanese Corporation of America, production of [pattern effects on] fabrics or articles [containing cellulose acetate], (P.), B., 945*.
- Ellis, *G. H.* See also British Celanese, Ltd.
- Ellis, *H. M.* See Clark, *A. W.*
- Ellis, *J. W.*, molecular absorption spectra of liquids below 3μ , A., 12.
- vibration spectrum of the ammonia molecule, A., 521.
- near infra-red absorption spectrum of calcite, A., 662.
- spectroscopic evidence of two types of ammonia molecule, A., 662.
- Ellis, *J. W.* See also Kinsey, *E. L.*
- Ellis, *L. M., jun.* See Borgstrom, *P.*
- Ellis, *O. C. de C.*, fallacious determination of the specific heats of gases by the explosion method, A., 314.
- Ellis, *O. W.*, oxides in brass, B., 615.
- Ellis-Foster Co., animal foods [biscuits of special shapes], (P.), B., 119.
- coating and similar compositions, (P.), B., 570.
- Ellis-Foster Co. See also Weber, *H. M.*
- Ellmer, *A.*, enzymic processes in the preparation of perfumes from plants, B., 793.
- Ellwood, *W. B.*, change in temperature accompanying change in magnetisation of iron, A., 1506.
- Ellzey, *E. F.* See Nat. Aniline & Chem. Co., Inc.
- Elm, *A. C.* See Werthan, *S.*
- Elman, *R.*, Arneson, *N.*, and Graham, *E. A.*, value of blood-amyase in diagnosis of pancreatic disease, A., 808.
- Elmen, *G. W.*, magnetic alloys of iron, nickel, and cobalt, B., 421.
- Elmen, *G. W.*, and Bell Telephone Labs., Inc., magnetic [alloy] material and appliance, (P.), B., 151*.
- [iron-nickel] magnetic material, (P.), B., 1033.
- non-magnetic material, (P.), B., 1033.
- Elmen, *G. W.*, and Western Electric Co., Inc., heat-treatment of loaded [electrical] conductors, (P.), B., 1160.
- Elmen, *G. W.* See also Electrical Res. Products, Inc.
- Elmore, *F. E.* See Ashcroft, *E. A.*
- Elmore, *G. H.*, centrifugal dryers, (P.), B., 1098.

- Elöd, *E.*, treatment of coconut fibre, (P.), B., 813.
 Elöd, *E.* See also Askenasy, P.
 Elphick, *G. K.* See Burn, J. H., and Wokes, F.
 Elsässer, *C.* See Deuts. Englische Quarzschmelze Ges.m.b.H.
 Elsässer, *R.*, and Siemens-Schuckertwerke Akt.-Ges., atomiser for liquids, (P.), B., 846*, 933*.
 Elsbach, *E. B.* See Waterman, H. I.
 Elsdon, *G. P.*, and Stubbs, *J. R.*, detection and determination of oxalic acid in stomach contents, A., 941.
 rising of fat in milk; percentage of fat in cream, B., 637.
 f. p. of milk as a means of detecting added water, B., 837.
 refractometer in milk analysis, B., 1167.
 Elsen, *G.*, was Mendelée's system known prior to 1869? A., 1014.
 Elsey, *H. McK.* See Westinghouse Electric & Manuf. Co.
 Elsner, *G.* See Siebe, P.
 Elsner, *Hans*, electric accumulator, (P.), B., 567.
 Elsner, *Horst.* See Schlubach, H. H.
 Elson, *L. A.*, Gibson, *C. S.*, and Johnson, *J. D. A.*, monohalogeno-mononitrotoluenes; arsenical compounds derived from 3-bromo-4-nitrotoluene, A., 230.
 o- and m-derivatives of simple phenyl alkyl ketones, A., 916.
 Elson, *L. A.*, Gibson, *C. S.*, and Simonsen, *J. L.*, oxidation of α -terpinene with perbenzoic acid, A., 216.
 Elstner, *G.* See Deines, O. von.
 Elvehjem, *C. A.*, determination of iron in milk and other biological materials, A., 805.
 factors affecting the catalytic action of copper in oxidation of cysteine, A., 869.
 Elvehjem, *C. A.*, Kemmerer, *A. R.*, Hart, *F. B.*, and Halpin, *J. G.*, effect of diet on iron and copper content of the egg, A., 242.
 Elvehjem, *C. A.* See also Hart, E. B.
 Elvey, *C. T.*, contours of hydrogen lines in stellar spectra, A., 1073.
 Elvey, *C. T.* See also Struve, O.
 Elvove, *E.* See Smith, M. I.
 Elzas, *J.* See Wiechmann, E.
 Elzemeyer, *E. H.*, and American Pulverizer Co., pulverising machine, (P.), B., 692.
 Emanuelli, *L.* See Soc. Ital. Pirelli.
 Embden, *G.*, and Deuticke, *H. J.*, isolation of muscle-adenylic acid from kidneys, A., 1203.
 Embden, *G.*, Hefter, *J.*, and Lehnartz, *M.*, behaviour of pyrophosphoric acid and of lactacidogen in muscular work, A., 637.
 Embden, *G.*, Jost, *H.*, and Lehnartz, *M.*, formation of hexosediphosphoric acid during the preparation of expressed juice of muscles, A., 1210.
 Embden, *G.*, and Schmidt, *Gerhard*, significance of adenylic acid for muscle function. VI. Origin of muscle-ammonia, A., 494.
 Embirikos, *N.*, Raman effect of crystallised and dissolved sulphates and carbonates, A., 1499.
 Emde, *H.*, methylation with formaldehyde, A., 453.
 ephedrine, A., 471.
 alkaloids and carbon dioxide assimilation; biogenesis of morphine, A., 1072.
 [origin of alkaloids], A., 1224.
 diastereoisomerism. VI. Configurations of morphine alkaloids, A., 1456.
 Emde, *H.*, and Spänhauer, *F.*, diastereoisomerism. V. Diastereoisomerism and crystalline symmetry of ephedrine, A., 470.
 Emden, *A.* See Scheibler, H.
 Emden, *F.*, accelerators of vulcanisation [of rubber] and their use, B., 112.
 Emeleus, *H. J.* See Taylor, Hugh S.
 Emeleus, *K. G.*, velocities of ions in the cathode dark space, A., 835.
 Émerique, (*Mlle.*) *L.*, imbibition of some natural colloidal complexes; cellular exchange, A., 288.
 Émerique, (*Mlle.*) *L.* See also Javillier, M.
 Emerson, *H.*, micro-determination of sulphur by fusion, A., 799.
 Emerson, *H.*, and Heyl, *F. W.*, esters of ergosterol, A., 910.
 Emerson, *O. H.*, and Cerecedo, *L. R.*, physiology of pyrimidines. II. Metabolism of uridine and cytidine, A., 1060.
 Emerson, *O. H.*, and Kirk, *P. L.*, apparent dissociation constant of glycine ethyl ester, A., 1120.
 Emerson, *R.*, metabolism of two protozoans, A., 114.
 pigment of *Blepharisma*, A., 114.
 behaviour of nickel carbonate in relation to photosynthesis, A., 174.
 Emerson, *W. C.*, distribution of calcium in jaundiced and alcoholic dogs, A., 1207.
 Emery, *A. H.* See Denny, E. H.
 Emery, *H. W.*, and Archer Rubber Co., manufacture of surface-finished rubber goods, (P.), B., 1080.
 Emhardt, *J. C.* See Du Pont de Nemours & Co., E. I.
 Emich, *F.* [with Häusler, *H.*, Rašin, *R.*, Alber, *H.*, and Schally, *E.*], optical striations, A., 149.
 Emin, *A.* See Jabłczyński, K.
 Emir, *F.*, surface solutions on mercury; oleic acid, A., 287.
 Emley, *W. E.*, economic and industrial prospects of xylose, B., 681.
 Emmens, *H.* See De Boer, J. H.
 Emmerie, *A.*, micro-determination of copper by means of urobilin, A., 1393.
 Eminerson, *M. A.* See Frei, W.
 Emmert, *E. M.*, determination of nitrate in green tomato and lettuce tissues, A., 824.
 procedure for determining total nitrogen by conversion into nitric acid, B., 372.
 Emmett, *P. H.*, and Brunauer, *S.*, poisoning action of water vapour at high pressure on iron synthetic ammonia catalysts, A., 1131.
 Emmett, *P. H.*, Hendricks, *S. B.*, and Brunauer, *S.*, dissociation pressure of Fe_3N , A., 699.
 Emmett, *P. H.*, and Jones, *E. J.*, effect of X-radiation on a platinum catalyst in the synthesis of water, A., 714.
 Emmett, *P. H.*, and Love, *K. S.*, catalytic and chemical characteristics of cubic and rhombohedral ferric oxide, A., 303.
 Emmett, *P. H.*, and Shultz, *F.*, equilibrium in the system $\text{Co}-\text{H}_2\text{O}-\text{CoO}-\text{H}_2$; free energy changes for the reaction (i) $\text{CoO} + \text{H}_2 = \text{Co} + \text{H}_2\text{O}$ and the reaction (ii) $\text{Co} + \frac{1}{2}\text{O}_2 = \text{CoO}$, A., 34.
 equilibrium in the system $\text{Co}-\text{CO}_2-\text{CoO}-\text{CO}$; indirect calculation of the water-gas equilibrium constant, A., 861.
 Emparan. See Hickman, E.
 Empire Gas & Fuel Co., and Walker, *John Charles*, treatment of hydrocarbon gas, etc., (P.), B., 93.
 Empson, *A. W.*, mixing and emulsifying apparatus, (P.), B., 799*.
 Emschwiller, *G.*, photolysis of organic iodides; utilisation of light, A., 554.
 photolysis of organic iodides; influence of temperature, A., 717.
 absorption of ultra-violet light by the alkyl iodides, A., 1090.
 Emulsol Corporation. See Rector, T. M.
 Enachesco, *M.* See Achard, C.
 Ende, *J. N. van den.* See Keesom, W. H.
 Ender, *F.*, and Jernstad, *A.*, relation between the refractive index and the iodine and saponification values of cod-liver oil, B., 430.
 Enderlin, *L.* See Dufraisce, C.
 Enders, *J. F.*, type-specific substance distinct from the specific carbohydrate in pneumococcus type 1, A., 1622.
 Endres, *G.*, electrical conductivity of leucocytes, A., 630.
 Endres, *G.* See also Eichler, H.
 Engel, *A. von*, gas formation and dissociation due to electric arcs in oil, B., 427.
 Engel, *E.*, adsorption by active charcoal, A., 286*.
 Engel, *E. W.*, *op*-dihydroxyazo-*p*-nitrobenzene as a test for the magnesium ion, A., 881.
 Engel, *H.*, action of ammonium salts [on plants] in relation to hydrogen-ion concentration, B., 524.
 Engel, *H.* See also Lemmermann, O.
 Engel, *K. H.*, cleavage of azo-dyes by sulphites; cleavage of 4-hydroxyazobenzene-5-carboxylic acid and 4-hydroxy-3-methylazobenzene-5-carboxylic acid, A., 81.
 sulphonation of β -naphthol in presence of boric acid; β -naphthol-1:6-disulphonic acid, A., 1282.
 Engel, *K. H.*, and Hutchison, *A. W.*, electrometric studies on β -naphtholsulphonic acids. I. Preparation of β -naphthol-6-sulphonic acid, A., 337.
 Engel, *L.* See Bergmann, E., and Goldschmidt, S.
 Engel, *M.* See Haehn, H.
 Engelbrecht, *G.* See Braune, H.
 Engelhard, *C.*, extract determination in barley, B., 77.
 Engelhardt, *A.* See I. G. Farbenind. A.-G.
 Engelhardt, *J. H.*, capillary phenomena and the heterogeneity of the soil, B., 252.
 Engelhardt, *V.*, and Siemens & Halske Akt.-Ges., removal of chlorine ions from electrolytic solutions, (P.), B., 335.

- Engelhart, E., and Loewi, O., enzymic decomposition of acetylcholine in blood and its inhibition by physostigmine, A., 800.
- Engelke, W., manufacture of light-sensitive cells, (P.), B., 776.
- Engelmann, M. See Du Pont de Nemours & Co., E. I.
- Engels, O., action of the complete fertiliser "nitrophoska" in comparison with other fertiliser combinations on the growth of sugar beet, B., 74, 342.
- phosphate content of soil and phosphate manuring, B., 580.
- action of ammonium sulphate and of sodium nitrate on the yield and starch content of potatoes, B., 923.
- Engels, O. See also Kling, M.
- Engels, W. H., and Merck & Co., quinine compound and its manufacture, (P.), B., 394.
- Enger, R., *N*-methylcadaverine, A., 1169.
- ϵ -glycyl-*dl*-lysine, A., 1420.
- Euger, R., and Halle, F., monobetaines of lysine, A., 1420.
- Enger, R., and Steib, H., α - and ϵ -monomethyl-lysine, A., 1419.
- Engisch, O., evaporators, (P.), B., 399.
- Engle, E. W., Olesen, H. L., and Fansteel Products Co., Inc., electrolytic condenser, (P.), B., 954.
- Engler, (Mlle.). See Launoy, L.
- Englis, D. T., and Byer, W. J., determination of dextrose in the presence of laevulose, B., 338.
- Englis, D. T., and Zannis, C. D., effect of ethylene on the activity of diastase and invertase, A., 499.
- English, F., evaluation of spent tan liquors by interferometry, B., 1041.
- English, J. See Chance Bros. & Co., Ltd.
- English, L. L., determination of the quantity of oil retained by citrus foliage after spraying, B., 1001.
- English, S., loss of ultra-violet transparency in glasses, B., 239.
- English, S., and Turner, W. E. S., relationship between chemical composition and thermal expansion of glasses, B., 144.
- Englund, B., reaction between polyhydric alcohols or phenols and arsenic compounds, in particular arsinoacetic acid. II., A., 330.
- Enk, E., origin of talc in the Göpfersgrün-Thiersheim stratum in the Fichtel Mts., A., 732.
- production of kaolin and kaolinite, A., 857.
- Enk, E. See also Manchot, W.
- Enlow, C. R., and Coleman, J. M., increasing protein content of pasture grasses by frequent light applications of nitrogen, B., 161.
- Enna, F. G. A. See Burton, D.
- Enoch, I., influence of poisons which inhibit oxidation on the formation of ammonia in the blood of mammals and birds, A., 359.
- Ensleme, J., acid hydrolysis of proteins, A., 357.
- Enssle, G., and Holzverkohlungs-Ind. A.-G., activation of charcoal, (P.), B., 1011.
- Ensslin, F. See Birckenbach, L.
- Entin, D., physico-chemical theory of caries, A., 365.
- Enz, W., and Pfister, F., formation of 2:4-dinitro- α -naphthol by nitration of naphthalene in absence or presence of mercury, A., 597.
- Enz, W. W. F. See Husa, W. J.
- Eoff, J. R., jun., Buttler, H., and Melchior, W., unusual alcoholic fermentations, B., 118.
- Eperjessy, G. von. See Criky, J. von.
- Ephraim, F., detection and determination of copper, A., 1393.
- Ephraim, F., and Rossetti, C., phosphates and arsenates, A., 47.
- Epner, C., production of liquid hydrocarbons from ethylene and gases containing ethylene, (P.), B., 360.
- Eppenbach, W., homogenising or similar mills for liquid-borne solids, (P.), B., 590.
- Eppenbach, W., and United States Colloid Mill Corporation, homogenising mill, (P.), B., 41*, 970.
- Epstein, A. K., egg product and its production, (P.), B., 263, 791.
- manufacture of margarine, (P.), B., 826*.
- Epstein, C. See Fodor, A.
- Epstein, D., and Gunn, J. W. C., action of the parotid gland secretion of *Bufo regularis*, A., 955.
- Epstein, E., and Lorenz, K., chemistry of tissue deposits in a case of Schüller-Christian disease, A., 1208.
- Epstein, P. S., nature of cosmic rays, A., 1496.
- Epstein, S., and Buckley, J. P., metallographic polishing. I. Automatic metallographic polishing machine, B., 105.
- Epstein, S., Cross, H. C., Groesbeck, E. C., and Wymore, I. J., iron-nitrogen system, A., 419.
- Epstein, Z. A., theory of superconductivity of elements. I. Thermo-elastic characteristics of superconductors, A., 986.
- theory of superconductivity of elements. II. Basic conceptions of the origin of superconduction, A., 1242.
- Erba Akt.-Ges. See Seck, W.
- Erbach, F. R. See Kelvinator Corp.
- Erbacher, O., determinations of the solubilities of radium salts, A., 406.
- Erbacher, O., and Käding, H., preparation of radium emanation, A., 130.
- existence of unknown disintegration product of radium with penetrating γ -radiation, A., 394.
- reaction mechanism in the precipitation of radium preparations rich in emanation, A., 1262.
- Erbacher, O., and Philipp, K., separation of elements in unweighable amounts, A., 1394.
- Erbacher, O., Philipp, K., and Donat, K., apparatus useful in the investigation of radio-activity, A., 131.
- Erben, F., Ginzburg's reaction [garic juice], A., 947.
- Erbring, H. See Ostwald, Wolfgang.
- Erdélyi, J., preparation of tetrachloro-*p*-benzoquinone, trichloro-*p*-benzoquinone, and *s*-trichloroaniline from aniline by electrolysis, A., 919.
- Erdenbrecher, A. H., influence of the lime condition of soils on the solubility of phosphates, B., 473.
- Erdey-Grúz, T., and Volmer, M., theory of hydrogen overvoltage, A., 1376.
- Erdmann, R., and Haagen, E., effect of vitamin injury on the origin of cancer, A., 1309.
- Erdmannsdörffer, O. H., halloysite from Elbingerode [Harz], A., 732.
- Erdős, J., application of the Tyndall effect to analysis, A., 724.
- Ericson, A., and Edlén, B., series spectra of the lightest elements in the extreme ultra-violet, A., 390.
- Ericson, A. See also Edlén, B.
- Ericson, G. See Benedicks, C.
- Ericson, R., and United States Gypsum Co., light-weight ceramic material and its manufacture, (P.), B., 145*.
- Ericsson, C. O. See Christiansen, E.
- Ericsson, J. W., machine for crushing ore, stone, etc., (P.), B., 933*.
- Ericsson, N. See Benedicks, C.
- Erie City Iron Works, and Wohlenberg, W. J., pulverising and treating materials, (P.), B., 125.
- Erikson, S., determination of antipyrine and pyramidone, A., 1199.
- Eriksson, H., machine for mixing two or more substances with each other, (P.), B., 151*.
- Erlbach, H. See Ohle, H.
- Erlenbach, E., treatment of sawdust, (P.), B., 1154.
- Erlenmeyer, H., dynamic stereochemistry. I. and II., A., 1433.
- creeping of crystals, A., 1515.
- Ermann, F. See Bauer, K. H.
- Ernecke, A. See Auwers, K. von.
- Ernould, L. See Bruylants, P.
- Ernst, A., new method of heating chemical plant, B., 85.
- Ernst, E., muscle contraction. VIII. Displacement of water as basis of convulsions, A., 108.
- Ernst, E., and Horváth, G., permanganate titration in a heated medium, A., 1307.
- Ernst, E., and Scheffer, L., muscle contraction. VII. Rôle of potassium, A., 108.
- Ernst, E., and Takács, I., determination of lactic acid in muscle, A., 1307.
- Ernst, E. J., jun. See Walker, A. C.
- Ernst, F. A., Young, C. H., and Lamb, A. B., use of ammonia as a lubricant, (P.), B., 323.
- Ernst, I. See Gump, W.
- Ernst, O. See I. G. Farbenind. A.-G.
- Ernst, V. C., photographic half-tone printing processes, (P.), B., 641.
- Eroschkin, I. K., types of common salt and its standardisation, B., 710.
- Erp, H. van, halogenated nitrophenols, A., 1176.
- Errera, J., electric moment of the colloid particle, A., 691.
- Errera, J., [with Bloch, B. M.], relationship between the dielectric and optical properties of substances having the sodium chloride lattice, A., 1347.
- Errera, J., Reding, R., and Slosse, A., comparison between the colorimetric and electrometric methods of measuring the p_H of blood; p_H of whole blood and plasma, A., 943.

- Errera, J., and Sherrill, M. L., derivatives of *n*-heptane. II. Dipole moments and molecular constitution, A., 888.
- Erste Böhmisches Kunstseidefabr. Akt.-Ges. See Steimmig, F.
- Erxleben, H. See Kögl, F.
- Esau, A., and Lorenz Akt.-Ges., C., apparatus for influencing substances by means of high-frequency electric energy, (P.), B., 108.
- Esau, J. N., and Stoland, O. O., blood-phosphorus and serum-calcium in parathyroid deficiency; effect of the parathyroid hormone, A., 645.
- Escaich, A., and Worms, J. P., dyeing process, (P.), B., 944*.
- Esch, W., Ostromislensky's method of vulcanisation [of rubber] without sulphur, B., 250.
- rubbering of fabrics containing copper and manganese, (P.), B., 522.
- Eschbach, W., preventing the formation of copper azide in copper lead azide detonators, (P.), B., 687.
- Eschenbrenner, H., approximate determination of alkaloid in fluid extract of ergot, B., 882.
- Escobar, C. G., structure of the veronal molecule, A., 1297.
- rapid method for the determination of arsenic in medicinal preparations, B., 394.
- Escourrou, R., prevention of boiler scale, B., 443.
- Esculies, J. See Fuentes, B. V.
- Eskew, W. E., and Vilbrandt, F. C., duplex weighing tube, A., 885.
- Esmarch, W., and Siemens & Halske Akt.-Ges., electric induction furnace, (P.), B., 381*.
- Espe, W., Richardson constants of distillation cathodes, A., 977.
- Espe, M. H., and Weiser, B., gas detector, (P.), B., 1101.
- Esquivel, R. B., and Gramajo, G. M., lipæmia. I. Determination of lipins in blood or plasma, A., 630.
- Ess, P. R. van. See Corson, B. B.
- Esselen, D. J., sugar: acid ratio of oranges, B., 80.
- Esselen, G. J., jun., Rose, R. P., and General Rubber Co., [rubber-] coated paper, (P.), B., 814.
- Esselen, G. J., jun. See also Brown, C. A.
- Esselmann, P. See I. G. Farbenind. A.-G.
- Essential Oil Sub-Committee of the Standing Committee on uniformity of analytical methods, report on determination of citral in lemon oil, B., 639.
- report on determination of solubilities [of essential oils], B., 793.
- Essex, J. L. See Faragher, W. F.
- Essex Rubber Co. See Oakley, A. T.
- Essin, O. See Müller, Erich.
- Esskuchen, manual trials with sugar beet, B., 1124.
- Establier y Costa, A., determination of allantoin in human urine, A., 105.
- Estermann, I., and Stern, O., diffraction of molecular radiation, A., 515.
- Estey, R. S., new measurements in the fourth positive CO bands, A., 520.
- Établissements Cauvet Lambert, and Magini, U., burners for liquid fuels, (P.), B., 49.
- Établissements G. Desson & Cie., and Desson, G., heat exchangers, (P.), B., 536.
- Établissements Poulenc Frères. See Soc. des Usines Chim. Rhône-Poulenc.
- Ethier, J. P., and Haber, F., hydrogen atoms as oxidation and reduction agents, A., 555.
- Etridge, J. J. See Imperial Chem. Industries, Ltd.
- Etrillard, J. See Dienert.
- Ettel, V., influence of the solvent on the rotatory power of the acetals derived from mannitol, A., 1238.
- Ettinger, J., action of purine bases on the pupil, A., 639.
- Ettisch, G., Domontovitch, M., and Mutzenbecher, P. von, adsorption of amphoteric substances by collodion membranes, A., 1247.
- Ettisch, G., and Ewig, W., electro-dialysis of serum. II. Efficacy of blood-protein membranes. III. Efficacy of membranes of other proteins, A., 359.
- Ettisch, G., and Zwanzig, A., variability of electrokinetic potential, A., 697.
- Eucken, A., chemical constants and vapour-pressure constants, A., 145.
- specific heat of chlorine, A., 677.
- Eucken, A., and Werth, H., specific heats of metals and alloys at low temperatures, A., 676.
- Euler, B. von, and Euler, H. von, vitamin-A in animals, A., 379.
- Euler, B. von. See also Karrer, P.
- Euler, E. See Ohle, H.
- Euler, H. von, and Brunius, E., purification of hæmolytic amboceptor, A., 103.
- hæmolysis. I. Pancreas-lipase. II. Purification of an amboceptor of hæmolysis. III. Combination of a purified amboceptor with erythrocytes, A., 361.
- Euler, H. von, Davidson, H., and Runehjelm, D., [biochemical factors in] heredity. IV., A., 1318.
- Euler, H. von, Demole, V., Karrer, P., and Walker, O., relation of carotene content to the vitamin-A activity of different plant materials, A., 1624.
- Euler, H. von, and Gard, S., lipase, A., 373.
- Euler, H. von, and Hellström, H., cytochrome and the catalase action of yeast, A., 1318.
- Euler, H. von, Hellström, H., and Runehjelm, D., micro-determination of magnesium, A., 562.
- Euler, H. von, and Myrback, K., co-zymase. XVII., A., 1318.
- Euler, H. von, Myrback, K., and Myrback, S., determination of catalase in plant material, A., 498.
- Euler, H. von, and Nilsson, R., catalase action of organically combined iron, A., 373.
- problems of affinity, A., 375.
- enzyme chemistry of heredity, A., 382.
- Euler, H. von, and Ölander, A., reaction between organic bromo-compounds and silver nitrate, A., 1257.
- formation of acetaldehyde in aqueous solution, A., 1257.
- Euler, H. von, Runehjelm, D., and Steffenburg, S., oxidation catalysis, A., 302.
- Euler, H. von, and Willstaedt, H., compounds between metallic chlorides and polyenes, A., 333.
- Euler, H. von, Zeile, K., and Hellström, H., active group of catalase, A., 814.
- Euler, H. von. See also Euler, B. von, Karrer, P., and Sym, E.
- Euler, U. von, stimulating action of adrenaline on muscle oxidation, A., 1479.
- Eulitz, W., simple graphical method of interpreting Debye-Scherrer diagrams, A., 1350.
- Euromerican Cellulose Products Corporation, and Darling, E. R., production of pulp, (P.), B., 553.
- Euromerican Cellulose Products Corporation, and Dorner, B., treatment of cellulose material, (P.), B., 456.
- Evans, R. See Villaret, M.
- Evans, B. B., sun-cracking of vulcanised rubber, B., 727.
- Evans, D. P., Davies, W. C., and Jones, W. J., lower trialkyl orthophosphates. I., A., 1019.
- Evans, H. C., economics of coke-oven gas utilisation in industry, B., 4.
- Evans, H. J. See Davies, W. J., Davis, A. H., and Thomas, E.
- Evans, E. V. See Illingworth Carbonization Co., Ltd.
- Evans, G. S., and Griffin Wheel Co., annealing [of car wheels], (P.), B., 868.
- Evans, G. S., and Mathieson Alkali Works, iron refining, (P.), B., 1075.
- Evans, H. M., and Cornish, R. E., effect of ions on the sedimentation of colloidal particles by centrifuge, A., 540.
- Evans, H. M., Cornish, R. E., Lepkovsky, S., Archibald, R. C., and Feskov, G., construction and use of Raschig's laboratory fractionating column, A., 1153.
- Evans, H. M., and Lepkovsky, S., determination of antineuritic vitamin-B, A., 506.
- Evans, H. M. See also Lepkovsky, S.
- Evans, J. C., rotary steam-heated drying cylinders [for yarns, etc.], (P.), B., 237.
- Evans, J. T. See Cawley, C. M.
- Evans, K., Pearson, H. F., and Reisemann, E., industrial application of active carbon, B., 42.
- Evans, O. B. See Murdock, W. J.
- Evans, R. E., protein and mineral metabolism in pregnant sows on a normal or high-calcium diet compared with a calcium-deficient diet, A., 107.
- influence of addition of calcium carbonate to a ration low in lime on appetite and digestibility of food in swine, A., 107.
- influence of a low- and high-calcium diet on development and chemical composition of the skeleton in swine, A., 369.
- Evans, S. F., absorption spectrum of selenium dioxide, A., 660.
- Evans, T. A. See Hamilton, W. B.
- Evans, T. W., and Dehn, W. M., reaction of phthalyl chloride with amides, A., 213.
- benzylidene acid rearrangement, A., 345.

- Evans, *T. W.*, and Dehn, *W. M.*, constitution of salts of certain cyclic imides, A., 773.
 arylsulphonyl derivatives of [amides and imides of] dibasic acids, A., 1038.
 reactions of quinol and constitution of quinhydrone, A., 1291.
 organic oxidations by iodic acid, A., 1404.
 derivatives of diphenylcarbonyl chloride, A., 1427.
- Evans, *U. R.*, distribution and velocity of the corrosion of metals, A., 846.
 isolation of the film responsible for the passivity of an iron anode in acid solution, A., 1126.
 passivity of metals. IV. Influence of acids in passivity and corrosion, B., 462.
 reproducibility in corrosion work, B., 463.
- Evans, *U. R.*, and Stockdale, *J.*, passivity of metals. III. The quantity and distribution of the superficial oxide, A., 29.
- Evans, *U. R.* See also Bannister, *L. C.*, and Britton, *S. C.*
- Evans, *W.*, mixing of powders with liquids in flow, (P.), B., 3.
- Evans, *W. L.*, and Benoy, *M. P.*, mechanism of carbohydrate oxidation. XI. Action of potassium hydroxide on maltose, A., 326.
- Evans, *W. L.*, and Conaway, *R. F.*, mechanism of carbohydrate oxidation. XII. Action of potassium hydroxide on *l*-arabinose and *d*-xylose, A., 1410.
- Evans, *W. L.*, and Hockett, *R. C.*, mechanism of carbohydrate oxidation. XIII. Action of potassium hydroxide on calcium hexosediphosphate; comparison with that of dextrose and laevulose, A., 1555.
- Evans, *W. L.* See also Purdy, *J. M.*
- Evans, *W. P.*, microstructure of New Zealand lignites. II. Lignites subjected to the influence of igneous intrusions, A., 887.
 changes produced by oxidation in the pitted tracheids of certain New Zealand forest trees, and their significance in the study of coals, B., 171.
 formation of fusain from a comparatively recent angiosperm, B., 308.
- Evans, *W. V.*, and Rowley, *H. H.*, etherates of magnesium bromide, A., 1373.
- Evans, *W. W.* See Murrill, *P. I.*
- Évéquoz, *M.*, use of revolving tubes for crystallisation and concentration, B., 931.
- Everett, *C. H.*, and Carr, *G. R.*, electric batteries and electrodes therefor, (P.), B., 429.
- Everett, *C. H.* See also Woollett, *G. H.*
- Everett, *J. G.*, reaction between aminophenylarsinic acids and carbon disulphide, A., 1195.
- Everett, *M. R.*, total sugar of blood and urine. III. Reducing action of glutathione, A., 1201.
- Everman, causes of floating of pigments in paints and enamels, B., 67.
- Evers, *F.*, swelling of [rubber] latex, B., 432.
- Evers, *F.*, and Schmidt, *R.*, artificial ageing of mineral oils, B., 801.
 artificial ageing of mineral oils. III., B., 801.
- Evers, *G. V.*, manufacture of refractory products in the U.S.A., B., 863.
- Evers, *M. W. E.*, determination of ammonia in water, B., 967.
- Evers, *N.*, variations in the results obtained by different observers with the antimony trichloride colour test for cod-liver oil, A., 505.
 permanence of vitamin-A in cod-liver oil as shown by the colour test, A., 505.
- Everse, *J. W. R.* See Niekerk, *J. van.*
- Evershed & Vignoles, Ltd., and Perry, *C. E.*, salinometers, etc., (P.), B., 972.
- Eves, *J. R.*, and Falls Electric Furnace Corporation, electric furnace, (P.), B., 334.
- Evien, *H. M.*, energy changes by a variation from the crystallographic group, A., 139.
- Evko, *W. E.*, fertiliser experiments with tobacco on the southern coast of Crimea in 1911-1919, B., 116.
- Evlampiev, *V. V.*, ketals of hydroxyketones, A., 580.
- Evnevitsh, *E. V.*, and Suchodski, *V. A.*, vapour pressure of bismuth chloride and bromide, A., 145.
- Evrard, *V.*, determination of cadmium, A., 182.
 new phosphonium salt, A., 438.
- Evvard, *J. M.*, Nelson, *V. E.*, and Sewell, *W. E.*, copper salts in nutrition, A., 638.
- Ewald, *L.* See Ziegler, *K.*
- Ewald, *P. P.*, general physical aspects of natural optical activity, A., 981.
- Éwe, *G. E.*, haziness of final chloroformic extractions in alkaloidal assaying, B., 301.
 methylene-blue, U.S.P., as precipitant of Irish moss, B., 839.
- Ewig, *W.* See Ettisch, *G.*
- Ewing, *G.* See Harrison, *T. R.*
- Ewing, *H.* See Brit. Celanese, Ltd.
- Ewles, *J.*, water as an activator of luminescence, A., 664.
- Ewles, *J.*, and Speakman, *J. B.*, examination of the fine structure of wool by X-ray analysis, A., 237.
- Exline, *P. G.* See Blackwood, *O. H.*
- Expanded Metal Co., Ltd. See Smith, *W.*
- Exssner, *C.* See Neumann, *B.*
- Exton, *W. G.*, instrument for measuring fluids for turbidity, colour, and other characteristics of fluids, (P.), B., 695.
- Eyer, *H.* See Freudenberg, *K.*
- Eymers, (*Miss*) *J. G.*, intensity measurements in the band spectrum of mercury hydride. II., A., 1330.
- Eymers, (*Miss*) *J. G.* See also Ornstein, *L. S.*
- Eyring, *H.*, calculation of energy of activation in bimolecular reactions, A., 546.
 application of optical data to the calculation of heats of activation, A., 1523.
- Eyring, *H.*, and Daniels, *F.*, decomposition of nitrogen pentoxide in inert solvents, A., 710.
 decomposition of nitrogen pentoxide in chemically active solvents, A., 710.
- Eyring, *H.*, and Póányi, *M.*, calculation of heats of activation, A., 1523.
- Eyring, *H.*, and Valkenburgh, *G. A. van*, method for determining viscosity of corrosive gases and molecular diameter of nitrogen pentoxide, A., 1105.
- Eyston, *G. E. T.*, separating apparatus, particularly for the separation of liquids from gases, (P.), B., 399.
- Ezol, *K.*, decomposition of oils by fat-decomposing enzymes, A., 500.

F.

- Faas, *H. R.* See Wirshing, *R. J.*
- Faber, *J. F.*, Chappell, *M. L.*, and Standard Oil Co. of California, production of asphalt and road oil, (P.), B., 598.
- Faber, *H. A.*, comparison of some white-sugar methods, B., 786.
- Faber, *P.*, and Aktien-Gesellschaft Brown, Boveri & Co., production of water from steam, (P.), B., 271*.
- Faber, *W.*, crystal form of adrenalone hydrochloride, A., 280.
- Fabian, *F. W.*, and Winslow, *C. E. A.*, influence on bacterial viability of various anions in combination with sodium, A., 376.
- Fabich, *K.*, detection of zinc by means of resorcinol, A., 1147.
- Fabisch, *W.* See Rona, *P.*
- Fabre, *R.*, distribution between erythrocytes and plasma of certain chemical substances used in therapeutics, A., 1472.
- Fabre, *R.*, and Simonnet, *H.*, oxidative-reductive power of the tissues, A., 949, 1215.
- Fabre, *R.* See also Belloc, *G.*, and Binet, *L.*
- Fabriques Nat. de Produits Chimiques et d'Explosifs Société Anonyme, treatment of carbonaceous materials to obtain distillation products such as hydrocarbons, metallised coke, etc., (P.), B., 7.
 manufacture and utilisation of water-gas, (P.), B., 312.
- Fabriques de Produits Chimiques de Thann et de Mulhouse, manufacture of alkali formates and ammonia from carbon-containing alkali cyanide, (P.), B., 418.
- Fabrizi, *B.*, analysis of calcium hypochlorite solutions; [chloramine-T as a volumetric reagent], B., 658.
- Fabry, *C.*, and Dubreuil, *E.*, supposed transmutation of lead by sunlight, A., 271.
- Fabrykant, *F.*, organic compounds of bismuth, A., 1457.
- Faedouelle, *S.*, roof coverings, (P.), B., 715.
- Faerber, phosphorus content of coal, B., 540.
- Faermann, *G. P.* See Grünberg, *A. A.*, and Vrevski, *M. S.*
- Faerman, *S. B.* See Salkind, *J. S.*
- Faessler, *A.* See Hevesy, *G. von.*
- Fagan, *H. D.*, and Collins, *T. R. D.*, Peltier and Thomson effects for bismuth crystals, A., 529.
- Fagan, *J. T.* See Brit. Thomson-Houston Co., Ltd.

- Fagelston, I., methods and apparatus for gas analysis, (P.), B., 799.
- Fagenberg, S., grating errors and electronic charge, A., 129.
- Faguet, M. See Richet, C.
- Fahl, B. E. See Harris, E. E.
- Fahrenhorst, W., and Schmid, E., temperature variation of crystal plasticity. II., A., 1506.
- Faidutti, M., transformations of ethylene oxides in the terpene series, A., 216.
- Faillebin, M. See Ligor Bey.
- Faingard, M. M., and Brando, E. M., Ural crude oil, B., 595.
- Fair, G. M., and Moore, E. W., determination of p_H of sewage sludge, B., 642.
- Fairbanks, Morse & Co. See Schneider, H. C.
- Fairbourne, A., partial esterification of polyhydric alcohols. X. Discovery of the first true β -glyceride and untrustworthiness of supposed structures of certain diglycerides, A., 574.
- Fairbourne, A., and Foster, G. E., synthesis of 1-methylantraquinones, A., 919.
- Fairbrother, T. H., influence of environment on the moisture content of flour and wheat, B., 32.
- Fairchild, J. G., base exchange in artificial autunites, A., 176. volumetric determination of fluorine by the use of ferric chloride, A., 725.
- Fairhall, L. T., and Richardson, J. R., nephelometric determination of zinc, A., 563.
- Fairhall, L. T., and Walker, L. C., foil-wrapped food material. I. Zinc foil, B., 483.
- Fairhall, L. T. See also Titus, A. S.
- Fairmont Manufacturing Co. See Anderson, Robert J.
- Fairweather, D. A. W., Thomas, J., and Scottish Dyes, Ltd., production of intermediates for vat dyes, (P.), B., 1018. production of dyes and dye intermediates [azo-dyes from diazotised leuco-esters of aminoanthraquinones or amino-vat dyes], (P.), B., 1019. dyeing, etc. [with azo-dyes containing a leucoanthraquinone or leuco-vat dye ester residue], (P.), B., 1024. production of colouring matters and intermediates [soluble leuco-esters], (P.), B., 1060. vat dye enolic sulphuric esters, and their use, (P.), B., 1144.
- Fairweather, D. A. W. See also Drescher, H. A. E., and Thomas, J.
- Faitelberg, R. O., absorption of water, 0.2% hydrochloric acid, gastric juice, ethyl alcohol, and various chlorides by the dog's isolated stomach, A., 1209.
- Faitelowitz, A., degradation of nicotine in tobacco, A., 1484.
- Fajans, K., chemical forces, constitution of the atom, and refractive data, A., 399. stability of salt hydrates, A., 1352.
- Fajans, K., and Gressmann, M. L., refractometry. XIII. Methods of refractometry and the refractivity-concentration relations of perchloric acid, A., 410.
- Fajans, K., and Kohner, H., refraction of electrolytes. XIV., A., 690.
- Falandrin, R., bleaching of straw, (P.), B., 280.
- Falber, M. See Mannich, C.
- Falck, improving the swelling and shrinking of wood in conditioning processes, B., 864.
- Falck, R., apparent destruction of coniferous wood by the larva of the common beetle (*Hylotrupes bajalus*, L.), A., 968. apparent destruction of wood by the larvæ of *Annobium* [common wood-worm]. II., A., 1224. decomposition of cellulose and lignin in fallen leaves and needles by fungi and its rôle in the formation of the humic material of the forest floor, A., 1483.
- Falk, E. See Antropoff, A. von.
- Falkenhagen, H., and Dole, M., square-root law of viscosity of strong electrolytes, A., 155.
- Falkenhausen, F. von, behaviour of benzoylmethylcarbinol with fermenting yeast, A., 642.
- Falkenhausen, M. von, blood coagulation; affinity of hæmolytic systems for the complement in circulating blood, A., 631.
- Fallon, J. See Smallwood, A.
- Falls Electric Furnace Corporation. See Eves, J. R.
- Faltis, F., boron hydrides and sodium triphenylboride, A., 524.
- Faltis, F., and Frauendorfer, H., constitution of isochondrodendrine; [3-*p*-carboxyphenoxy-4:5-dimethoxyphthalic acid]. IV., A., 774.
- Faltis, F., Pirsch, J., and Bermann, L., stereochemistry of allene compounds, A., 578.
- Fancher, G. H., heat calculation for flash distillation [of petroleum hydrocarbons], B., 750.
- Fanconier, E., and Simpère, A., apparatus for the continuous production of illuminating gas, (P.), B., 405.
- Fansteel Products Co., Inc. See Balke, C. W., and Engle, E. W.
- Fantl, P., and Fisch, J., hydroxymethanetrissulphonic acid, A., 320.
- Fantl, P. See also Fromm, E.
- Faragher, W. F., Morrell, J. C., and Essex, J. L., relationship between calorific value and other characteristics of residual fuel oils and cracked residuums, B., 850.
- Faragher, W. F., Morrell, J. C., and Levine, I. M., determination of olefine and aromatic hydrocarbons, B., 359.
- Faragher, W. F. See also Egloff, G., and Morrell, J. C.
- Farber, C. W., and New Jersey Zinc Co., [manufacture of] zinc sulphide [pigment], (P.), B., 661.
- Farber, H. L., and Blum, W., throwing powder in chromium-plating, B., 287.
- Fargher, R. G., Galloway, L. D., and Probert, M. E., inhibitory action of certain substances on the growth of mould fungi [on cotton goods], B., 1020.
- Fargher, R. G. See also Brit. Cotton Industry Res. Assoc.
- Fargo, J. M. See Hart, E. B.
- Farinholt, L. H. See Chattaway, F. D.
- Farkas, A., kinetics of the thermal transition of parahydrogen, A., 1377.
- Farkas, D. von. See Schmid, R.
- Farkas, G., and Groák, B., electrostatic properties of human fibrinogen, A., 491.
- Farkas, L., Goldfinger, P., and Haber, F., ignition of carbon monoxide detonating mixture by decomposition products of water, A., 547.
- Farkas, L., Haber, F., and Harteck, P., photochemical sensitisation of the combustion of hydrogen and carbon monoxide, A., 554, 1384*.
- Farkas, L., and Harteck, P., photochemical sensitisation in the ultra-violet, A., 1260. influence of nitrogen dioxide on the ignition of hydrogen-oxygen mixtures, A., 1378.
- Farl, H. See Hein, F.
- Farley, E. See Delaware, Lackawanna, & Western Coal Co.
- Farley, H. B. See Joslyn, M. A.
- Farmer, C. J., and Crittenden, P. J., carbon monoxide content of the blood of steel-mill operatives, A., 358.
- Farmer, E. H., Lawrence, C. D., and Scott, W. D., properties of conjugated compounds. VIII. Addition of bromine to $\alpha\delta$ -, $\alpha\gamma$ -, and $\beta\gamma$ -dimethylbutadienes, A., 572.
- Farmer, E. H., and Mehta, T. N., properties of conjugated compounds. X. Variability in the mode of ester addition to butadiene esters and ketones, A., 1163.
- Farmer, E. H., and Warren, F. L., properties of conjugated compounds; additive formation of cyclohexenes, A., 473.
- Farmer, E. H. See also Cawley, C. M.
- Farmer, H. See Jones, M. C. K.
- Farmer, M., electrical annealing [of metals], (P.), B., 618.
- Farnell, R. G. W., ash determinations [of cane and beet products] by the conductivity method using the "Salometer," B., 1084.
- Farnsworth, W. M., and Central Alloy Steel Corporation, manufacture of stainless iron, (P.), B., 994.
- Farquharson, J. See Gray, F. W.
- Farr, A. G. See Benedict, F. G.
- Farr, F. W., vulcanising [of rubber], (P.), B., 385.
- Farr, W. K. See Clark, G. L.
- Farrar, D. F., special hydrometer for aqua ammonia, B., 903.
- Farrell, L. See Lochhead, A. G.
- Farries, E. H. M., and Bell, A. F., metabolism of *Nematospira gossypii* and related fungi with special reference to the source of nitrogen, A., 958.
- Farrow, P., and Canning Town Glass Works, Ltd., liquid fuel burners, (P.), B., 94.
- Fasold, H., citric acid in urine: its origin, A., 951.
- Fasold, H., and Schmidt, H. A., glycolysis and behaviour of lactic acid in normal and pathological cerebrospinal fluid, A., 946.
- Fasold, K. See Weissberger, A.
- Fast, J. D. See De Boer, J. H.
- Fastigktsaktiebolaget Öresund, electrothermal production of zinc, (P.), B., 106.
- Fasting, J. S., rotary kilns, (P.), B., 398.

- Fasting, J. S., tube mills, (P.), B., 1096.
- Fau, M. See Sanfourche, A.
- Faulding & Co., F. H., compositions comprising carbohydrates and acid-reacting substances for incorporation with milk, (P.), B., 927.
- Fausser, G., electrolysis of water at high pressure, B., 107.
- Fausser, G. See also "Montecatini" Soc. Gen. per l'Ind. Mineraria ed Agricola.
- Faust, L. Y., fine structure of the K-radiation of the lighter elements, A., 1229.
- Faust, O. See Zellstofffabr. Waldhof.
- Favour, P. See Kodak, Ltd.
- Favre, C. See Janot, M. M.
- Favre, G. A., production of anhydrous stannic chloride from metals [alloys] containing tin, (P.), B., 102.
- Favre, P. A., methods and apparatus for manufacture of tubes made of a fusible material which can be drawn out, in particular glass tubes, (P.), B., 714.
- Favresse, M. See Soc. des Prod. Belton.
- Fawcett, E. H. See Acree, S. F.
- Fawcett, H. W., centrifugal separators, (P.), B., 845.
- Fawcett, R. C. See Achmatowicz, O.
- Fawcett, W., fusing or calcining rock materials for production of cements, limes, or similar substances, (P.), B., 60.
- Fawkes, C. E., and Quaker Oats Co., production of coloured material and coating [cellulose lacquer], (P.), B., 26.
- Fay, A. C., normal limits of variation of the methylene-blue reduction test [with milk], A., 947.
- Fay, A. C. See also Martin, W. H.
- Feagley, C. C. See Grasselli Chem. Co.
- Fearon, W. R., and Thompson, A. G., urocarmin reaction, A., 1467.
- Feather, N., β -particles of very small energy emitted during radioactive transformation, A., 8.
- status of the γ -ray change, A., 270.
- distribution in time of the scintillations produced by the α -particles from a weak source, A., 659.
- absorption method of investigating β -particles of high energy: the maximum energy of the primary β -particles of mesothorium-2, A., 1085.
- Fechter, A., and Burger, P., apparatus for decomposition of hydrocarbons by explosion, (P.), B., 313.
- Federal Phosphorus Co., manufacture of acid calcium phosphate [for use in baking powders, self-raising flour, etc.], (P.), B., 765.
- Federal Phosphorus Co., Klugh, B. G., and Seyfried, W. R., production of diammonium phosphate, (P.), B., 817.
- Federal Phosphorus Co., and Scott, T. J., manufacture of diphenyl, (P.), B., 453.
- Federal Phosphorus Co. See also Booth, C. F., Durgin, C. B., Lloyd, S. J., and White, Harold E.
- Federov, M. V. See Butkevitch, V. S.
- Fedorov, B. P. See Minaev, V. I.
- Fedorova, A. M. See Rodionov, V. M., and Tschernaiev, I. I.
- Fegeler, H. See Rojahn, C. A.
- Fehér, D., measurement of carbon dioxide production in soils, B., 161.
- Fehér, D., and Vagi, S., biochemical and biophysical factors in forest soils, B., 160.
- Fehrle, A. See Kolle, W.
- Feichtinger, (Frl.) N., action of α - and β -rays on protoplasm, A., 967.
- Feige, R., preparation or conversion of oils, (P.), B., 181.
- Feigelson, E., regeneration of [sulphated] lead plates of electric accumulators, (P.), B., 1078.
- Feigl, F., evaluation of complex and catalytic reactions in analytical chemistry, A., 724.
- detection of traces, A., 1547.
- Feigl, F., and Kapulitzas, H. J., qualitative micro-analysis; detection of traces of copper by capillary separation, A., 1147.
- Feigl, F., Klanfer, K., and Weidenfeld, L., rapid iodometric determination of chromium as chromate in presence of organic substances, A., 565.
- rapid method of determining the chromium in used chrome [tanning] liquors, B., 159.
- Feigl, F., and Krumholz, P., microchemical detection of carbonates, A., 880.
- analytical application of catalytic reactions; identification of palladium in presence of other platinum metals, A., 1394.
- Feigl, F., and Leitmeier, H., test for sulphide-sulphur, A., 51.
- Feigl, F., and Leitmeier, H., test for silicic acid, A., 52.
- Feigl, F. See also Leitmeier, H.
- Feiks, R. See Riesz, E.
- Fein, F., testing of patent leather, B., 732.
- Feiner, H., value of measurements on oil particles of radius $3.4-11.4 \times 10^{-5}$ cm. by the Ehrenhaft method, and a determination of their errors, A., 400.
- Feinschmidt, O., distribution of hexosephosphoric acid in different muscles and organs of the animal organism, A., 238.
- Feist, K., and Klatt, F., determination of the alcohol content of tincture of iodine, B., 531.
- Feist, W. See Staudinger, H.
- Feit, W., technical preparation of rhenium, B., 822.
- Feitknecht, W., oxidation of copper at higher temperatures, A., 302.
- decomposition of solids in liquids. I. Basic zinc salts, A., 436.
- decomposition of solids in liquids. II. Different modifications of zinc hydroxide, A., 700.
- Felbeck, G. T. See Ray, A. B.
- Feld & Co. G.m.b.H., W., gas washer with rotating centrifugal tubes, (P.), B., 224.
- Feldblet, A. See Aronson, L.
- Feldmann, L. See Fischer, H. O. L.
- Feldmann, R. W. See Burkser, E. S.
- Feldtmann, G. A. See Opfermann, E.
- Felgate, R. S. See Brit. Celanese, Ltd.
- Felix, K., and Lang, A., sturine, A., 939.
- Felkers, P. F., ferric chloride as indicator in the titration of potassium ferrocyanide with zinc sulphate, A., 882.
- Fell, B. See Elias, H.
- Fellenberg, T. von, micro-determination of arsenic in organic substances, A., 799, 1198.
- determination of traces of iodine in organic materials, A., 1314.
- iodine investigations at Bad Hall in Upper Austria, A., 1314.
- arsenic content of foods and of foods treated with arsenical preparations, B., 529.
- Fellmer, E. See General Aniline Works, Inc.
- Fels, E. See Fraenkel, L.
- Felsing, W. A., and Thomas, A. R., vapour pressures and other physical constants of methylamine and methylamine solutions, A., 146.
- Felten & Guillaume Carlswerk Akt.-Ges., compound wire-cable, (P.), B., 198.
- Feng, C. T., and Wilson, S. D., some derivatives of ephedrine, A., 1176.
- Feng, T. P. See Lim, R. K. S.
- Fenhagen, F. D., Rhodes, F. H., Hesser, T. M., and Barrett Co., fractional condensation, (P.), B., 41.
- Fenn, W. O., effect of anaërobiosis on the oxygen consumption of muscles, A., 950.
- Fenoglio, M., presence of nesquehonite in the serpentine of Viù in Val di Lanzo, A., 731.
- Fenske, M. R., knock rating of straight-run Pennsylvania gasoline in relation to b. p., density, and index of refraction, B., 976.
- Fenske, M. R., and Frolich, P. K., catalysts for formation of alcohols from carbon monoxide and hydrogen. V. Decomposition and synthesis of methyl alcohol with a zinc-copper-chromium oxide catalyst, B., 49.
- Fenton, E. W. See Atkins, W. R. G.
- Fenton, G. W., and Ingold, C. K., influence of poles and polar linkings on course pursued by elimination reactions. VII. Generalised form of olefinic degradation of sulphones, A., 739.
- Fenton, (Miss) T. M., and Garner, W. E., heats of association of acetic and heptioic acids in the vapour state, A., 677.
- Fenwick, F., and Gilman, E., antimony-antimony trioxide electrode for determination of dissociation constants of local anæsthetics and of related compounds, A., 122.
- Fenyvessy, B. von, and Scheff, G., metabolism of spirochætes and trypanosomes, A., 960.
- Feofilaktov, V. V., condensation of pyruvic acid with formaldehyde in the presence of sulphuric acid. II. So-called "tetramethylenedioxalic acid," A., 193.
- Ferchmin, A. See Frisch, S.
- Ferdmann, D., effect of prolonged contractions on the content of phosphorus compounds of pigeon and rabbit muscle, A., 243.
- mechanism of changes in phosphorus compounds in muscle autolysis, A., 641.

- Ferguson, A., parachor and molecular volume, A., 669.
 Ferguson, J. See Imperial Chem. Industries, Ltd.
 Ferguson, J. (Oxford), and Applebey, M. P., syneresis of silica gel, A., 1519.
 Ferguson, J. B. See Beare, W. G.
 Ferguson, J. K. W., Irving, L., and Plewes, F. B., source of expired carbon dioxide in decapitated eviscerated cats, A., 102.
 Ferguson, J. K. W. See also Irving, L.
 Ferguson, L. See Schumacher, E. E.
 Ferguson, R. F., interpretation of plant and laboratory test data [in the ceramic industry], B., 664.
 Ferguson, R. M. See Eagle, A.
 Fermazin, W., wash-bottle for organic, poisonous, or corrosive liquids, A., 1550.
 testing of acetylcellulose in the film, lacquer, and artificial silk industries, B., 943.
 Fermi, E., magnetic moments of atomic nuclei, A., 132.
 complex 4d of the helium molecule, A., 387.
 intensity relations for alkali doublets, A., 388.
 magnetic moment of the atomic nucleus, A., 393.
 Fermor, L. L., sp. gr. and proximate composition of some Indian vitrains, B., 800.
 Fernández, O., and Castilla, M. M., derivatives of pinonic acid, A., 216.
 Fernbach, J. von. See Schill, E.
 Fernelius, W. C. See Schurman, I.
 Ferramola, R. See Trelles, R. A.
 Ferranti, Ltd. See De Ferranti, S. Z.
 Ferrari, A., and Colla, C., crystal structure of normal carbonates of cobalt and nickel, A., 400.
 chemical and crystalline structure of some complex nitrites, A., 1388.
 Ferrari, A., and Giorgi, F., crystal structure of the anhydrous iodides of bivalent metals. I. Iodides of cobalt, iron, and manganese, A., 400.
 Ferrari, A., and Inganni, A., crystalline form in the formation of solid solutions. VI. Thermal and X-ray analyses of the anhydrous systems $\text{CaCl}_2\text{-CoCl}_2$, $\text{CaCl}_2\text{-FeCl}_2$, $\text{CaCl}_2\text{-MnCl}_2$, and $\text{CaCl}_2\text{-CdCl}_2$, A., 285.
 Ferrari, A., and Scherillo, A., crystal structure of aluminium fluoride, A., 400.
 Ferrari, A. See also Zambonini, F.
 Ferrari, C. G., and Bailey, C. H., effect of storage and of various bleaching agents on the carotene concentration of flour, B., 32.
 Ferré, L., [contamination of wines by] nicotine [insecticides used] in vine culture, B., 1087.
 Ferree, W. W. See Tiller, D. M.
 Ferrero, P., and Corbaz, J., 1-chloronaphthalene. V. Chlorination of naphthalene in solution, A., 1424.
 Ferro Chemicals, Inc. See Franchot, R.
 Ferro-Arc Welding Co., Ltd. See Turner, B.
 Ferryhill Foundry & Engineering Co., Ltd. See Taylor, E.
 Fesca & Sohn, C. A. See Langenberg, T.
 Feschtschenko, G. See Heller, M.
 Fesefeldt, H., influence of temperature on the absorption spectra of alkali halide crystals, A., 1343, 1497.
 Fesefeldt, H., and Gyulai, Z., light absorption in crystals of silver and copper halides, A., 1498.
 Feskov, G. See Evans, H. M.
 Fessler, A. H., new form of non-plastic material [for porcelain], B., 664.
 Fessler, A. H., and Navratil, H., effect of different fluxing oxides on the constitution of porcelain, B., 663.
 Fester, G., determination of trivalent arsenic [in plant protective materials], B., 29.
 Fester, G., and Christen, C., cracking of mineral oils in presence of the electric arc, B., 403.
 Fetkenheuer, B., Neumann, H., and Siemens & Halske Akt.-Ges., magnetic alloy, (P.), B., 953*.
 Fetter, J., vaporising nozzles, (P.), B., 1051.
 Fetterolf, L. D., consistencies of raw terra cotta glazes, B., 1153.
 Fettinger, H. See Dafert, O.
 Fettweis, F., nature of the fracture of steel and the significance of the transition region in the notched-bar impact test, B., 14.
 Feubel, A., weighing of silk, (P.), B., 763.
 Feuchter, H., and Hauser, E. A., behaviour of progressively raked rubber with respect to ageing, hysteresis, m. p., and energy effects, B., 112, 572.
 Feussner, O., and Müller, L., determination of high temperatures, and application to platinum alloys, A., 1395.
 Fevold, H. L., Hisaw, F. L., and Meyer, R. K., relaxative hormone of the corpus luteum; purification and concentration, A., 1320.
 Fibeg, M. P., and Rusinov, L. A., Popinskoye phosphorite deposit, A., 1267.
 Fical, C., extraction of copper from residues of copper sulphate manufacture, B., 507.
 Fichte, E. See Meyer, E.
 Fichter, F., temperature effect at working electrodes, A., 432.
 Fichter, F., and Goldach, A., oxidations with fluorine. XIV. Solutions of silver salts, A., 435.
 oxidations with fluorine. XV. Role of the labile peroxide from sulphuric acid in the preparation of persulphate by means of fluorine, A., 722.
 oxidations with fluorine. XVI. Action of fluorine on solutions of salts of tin and iron; preparation of cobaltic perchlorate electrochemically and with fluorine, A., 1140.
 oxidations with fluorine. XVII. Preparation of portitanic, pervanadic, and permolybdic acids; reduction of per-acids by ozone, A., 1537.
 Fichter, F., and Schnider, A., Kolbe's synthesis with cyanoacetic acid, A., 328.
 Fidasco, Ltd., and Haslam, W. H., deodorising, disinfecting, or preserving organic or offensive matter and production of fertilisers therefrom, (P.), B., 968.
 Fiedler, M. See Research Corp.
 Fiehe, J., and Kordatzki, W., examination of honey, B., 80.
 Field, A. See Morgan, A. F.
 Field, C., and Chemical Machinery Corporation, heating and controlling chemical reactions at high temperatures, (P.), B., 86.
 Field, C. H., and Haslett, D., non-splintering glass, (P.), B., 13.
 [production of] artificial silk and like filamentary material, (P.), B., 98.
 Field, J. F., mixing machine, (P.), B., 269.
 Field, M. C. See Standard Telephones & Cables, Ltd.
 Fieldner, A. C. See Denny, E. H.
 Fiero, G. W., preservation of fats, B., 466.
 Fierz-David, H. E., and Brunner, A., Lillienfeld silk (Nuera silk), B., 235.
 Fiesselmann, G., detection of fruit wine by the sorbitol process, B., 31, 927.
 detection of fruit wine in grape wine by Werder's sorbitol method, B., 927.
 Fife, H. R., and Reid, E. W., industrial solvents: ethylene dichloride, dichloroethyl ether, and isopropyl ether, B., 651.
 Fifield, C. C., and Bailey, C. H., march of acidity in stored flours, B., 213.
 Figlioli, D. See Bingham, E. C.
 Fikentscher, H., and Mark, H., spiral model for rubber, B., 249.
 Filby, E. A. See Binder, J. L.
 Fildes, P. See Knight, B. C. J. G.
 Filippo, H., determination of composition of argon-nitrogen mixtures, A., 52.
 Filippova, N. D. See Przeborowski, J. S.
 Fillipitshev, G. F. See Pamfilov, A. V.
 Film Cooling Towers (1925), Ltd., and Scott, W. A., cooling towers, (P.), B., 845.
 Film Ozaphane, cellulose films, (P.), B., 457.
 photographic films [for cinematography], (P.), B., 588.
 [fireproofing of] cellulose [kinematograph] films, (P.), B., 687.
 printing of kinematograph films, (P.), B., 742.
 manufacture of photographic paper and films, (P.), B., 1047.
 Filma Oil Burners, Ltd., and Marsden, A., apparatus for burning liquid fuel, (P.), B., 408.
 Filmer, R. S., reducing the unit charge of nicotine [in plant sprays], B., 962.
 Filosofov, B., characteristics of "terra rossa" from the vicinity of Rome, A., 188.
 Filtrators, Ltd. See Saks, V. V.
 Filtrés Philippe, and Heibig, E., dialysing filter-presses, (P.), B., 694.
 Filtrol Co. of California. See Baylis, W. S., and Kelley, W.
 Finály, S. von, "ball coals" (Mugelkohlen), B., 696.
 Finch, G. I., and Thompson, H. H., gaseous combustion in electric discharges. V. Spectrographic examination of the cathodic combustion of carbon monoxide, A., 1532.
 Finch, G. I. See also Bradford, E. W.
 Fincke, H., should lipins be calculated as fat? A., 1326, 1486.
 Findlay, J. H., spark spectrum of cobalt, Co II, A., 1227.

- Fine, J., the invertase-accelerator of serum and other enzyme-accelerators reported in serum, A., 1474.
- Fine, R. D. See Ehret, W. F.
- Finelli, L. See De'Conno, E.
- Fingado, R. See Curtius, T.
- Fingland, J. J., the Betts electrolytic lead-refining process in practice, B., 512.
- Fink, C. G., and Greenspan, L., electrolytic recovery of lead from lead sulphate waste, B., 1033.
- Fink, C. G., and Hogaboom, G. B., jun., electrode potentials of silver in cyanide solutions, A., 863.
- Fink, C. G., Lowe, R. E., and Bario Metal Corporation, electrodes [for electrolysis of halogen salts] and their manufacture, (P.), B., 335.
- Fink, C. G., and Rohman, F. A., preparation of pure electrolytic nickel. II. Final elimination of copper and removal of cobalt and iron, A., 1332.
- preparation of pure electrolytic nickel. I. Elimination of copper from nickel-copper electrolytes, B., 377.
- Fink, H., and Kühles, R., simple connecting device for the pure culture of yeast, B., 526.
- Fink, H., and Weber, Karl, fluorescence of porphyrins and hydrogen-ion concentration, A., 225.
- Fink, H., and Weinfurter, F., staining of yeast by methylene-blue and its relation to hydrogen-ion concentration and the problem of permeability, B., 526.
- Fink, H., and Wildner, H., tannin [in brewing]. I. Precipitation of the proteins of wort and beer by tannin, B., 212.
- Fink, H. See also Lüers, H.
- Fink, S. See Kohn, M.
- Fink, W. L., and Horn, K. R. van, lattice distortion as a factor in the hardening of metals, A., 1350.
- Finkelnburg, W., Raman effect and the hydrogen spectrum, A., 13.
- continuous spectra of gases, A., 126.
- significance of the continuous hydrogen molecule spectrum, A., 1073.
- Finkelnburg, W., Lau, E., and Reichenheim, O., measurements of the excitation potential for spectral lines and their application to the many line spectrum of hydrogen, A., 833.
- Finkelstein, B. N., viscosity of solutions of electrolytes, A., 409.
- theory of viscosity of solutions of strong electrolytes, A., 410.
- ionisation potential of a two-electron atomic system, A., 656.
- Finkelstein, H. See Mayer, W. B.
- Finkelstein, V. S., systems dimethylpyrone-group V element halides, A., 863.
- Finlay, C. L., and Finlay Photographic Processes, Ltd., [combined taking screen and panchromatic plate for] colour photography, (P.), B., 794.
- colour photography, (P.), B., 840.
- Finlay, H., tinting of beer, (P.), B., 682.
- Finlay Photographic Processes, Ltd. See Finlay, C. L.
- Finley, F. L., nepheline syenites and pegmatites of Mount Royal, Montreal, A., 886.
- Finley, H. E., toleration of fresh-water protozoa to increased salinity, B., 688.
- Finley, S. E., preparation of road-surfacing compositions, (P.), B., 1031.
- Finn, A. N., and Klekotka, J. F., decomposition of aluminous silicates for chemical analysis, A., 1010.
- Finn, H. G. See Titus, A. S.
- Finnemore, H., and Cox, C. B., cyanogenetic glucosides in Australian plants. II. (A.) *Eremophila maculata*. (B.) Presence of enzymes in fodder plants as a factor in poisoning of stock, A., 1627.
- Finska Forcit-Dynamit Aktiebolaget, wrapping up cartridges of plastic explosives and other similar material with paper or the like material, (P.), B., 122.
- forming plastic explosives into strings, e.g., for manufacture of dynamite cartridges, (P.), B., 304.
- Finzel, T. G., pyrophoric iron. I. Preparation and properties. II. Adsorption of carbon dioxide and ammonia; use in the ammonia synthesis, A., 309.
- Finzi, B., dynamic actions in slow rotational motions in viscous liquids, A., 526.
- Finzi, C., arsenic derivatives of 2-methylthiophen. IV., A., 626.
- Fioletov, A., occurrence of rare elements in clays, B., 509.
- rarer constituents of clays, B., 558.
- Fireman, P., substitution of one atom of nitrogen for three of chlorine organic compounds. I. Action of ammonium chloride on benzotrichloride, A., 1172.
- Firestone Tire & Rubber Co., curing [vulcanisation] of [rubber] inner tubes, (P.), B., 113.
- manufacture of rubberised fabric, etc., (P.), B., 918.
- Firing, L. See Monk, R. H.
- Firmenich, R. See Fourneau, E.
- Firpo, C., internal-combustion engines utilising the gaseous mixture obtained from the electrolysis of water, (P.), B., 448.
- Fir-Tex Insulating Board Co. See Millington, A. E.
- Firth, F., gas drying and producer practice, B., 129.
- economics of benzol recovery at gas works, B., 129.
- Fisch, J. See Fantl, P., and Fromm, E.
- Fischbeek, K., and Dörner, O., dependence on temperature of the rate of formation of cupric sulphide and the heat of loosening [of the crystal lattice], A., 164.
- reduction of cupric sulphide by hydrogen at various temperatures, A., 428.
- Fischbeek, K., and Einecke, E., determination of water content of solids, e.g., brown coal, B., 42.
- Fischelis, R. P. See Sickman, D. V.
- Fischer, A., and Blankenstein, A., chemical constitution of serum-proteins. I., A., 943.
- Fischer, A. See also Blankenstein, A.
- Fischer, A. J., collection and utilisation of [sewage-sludge] gases, B., 304.
- Fischer, A. J., Rudolfs, W., and Zeller, P. J. A., effect of alkaline substances on sewage-sludge digestion, B., 304.
- Fischer, C., jun., Reddish, W. T., and Twitchell Process Co., removing oil from mineral oil sulphonic bodies, (P.), B., 7.
- sulphonic body [from mineral oil sludge], (P.), B., 7.
- Fischer, C., jun., Stegemeyer, L. A., and Twitchell Process Co., treatment of metal to remove scale, (P.), B., 107.
- Fischer, E. See General Aniline Works, Inc., and Vorländer, D.
- Fischer, E. L., gas-generating apparatus, (P.), B., 91.
- Fischer, F. See Gen. Aniline Works, Inc.
- Fischer, F. (Dresden). See Schwinning, W.
- Fischer, Franz, new ideas of the genesis of petroleum, A., 1267.
- solved and unsolved problems in coal research, B., 42.
- purification of gases from organically-combined sulphur, (P.), B., 181*.
- nature of the coking process, B., 355.
- production of higher hydrocarbons [from methane], (P.), B., 408.
- Fischer, Franz, and Bahr, H., decomposition of methane at various temperatures at various catalysts, A., 715.
- reaction of methane and lower homologues with carbon monoxide and carbon dioxide at various catalysts, A., 715.
- oxidation of methane by sulphuric acid in presence of catalysts, A., 735.
- high-carbon carbides of the iron group, A., 1540.
- Fischer, Franz, Bahr, T., and Sustmann, H., carbonisation of bituminous and brown coals in an atmosphere of gas under pressure, B., 172.
- Fischer, Franz, and Dilthey, P., solubility of gas benzines and gases in paraffin oil, B., 544.
- Fischer, Franz, Klüster, H., and Peters, K., dissociation of carbon dioxide under the influence of the electric discharge under reduced pressure, B., 987.
- Fischer, Franz, and Pichler, H., production of higher hydrocarbons from methane, (P.), B., 500.
- Fischer, Franz, Pranschke, A., and Sustmann, H., production of a strong semi-coke from a poorly caking or non-caking coal by the addition of ordinary or oxidised low-temperature tar, B., 128.
- Fischer, Franz, and Tropsch, H., production of paraffin hydrocarbons with more than one carbon atom, (P.), B., 314*.
- Fischer, F. G., action of ozone on ethers and alcohols, A., 191.
- Fischer, F. P., swelling of the cornea and skin of animals' and human eyes, A., 802.
- Fischer, G. See Bronn, J. I.
- Fischer, Hans, and Bäumlér, R., chlorophyll. XI. Phaeoporphyrin, A., 932.
- Fischer, Hans, Berg, H., and Schormüller, A., porphyrin syntheses. XXVIII. Syntheses of the chlorophyll porphyrins rhodo- and pyro-porphyrins, and pyroaetioporphyrin, A., 931.
- Fischer, Hans, Gebhart, H., and Rothhaas, A., chlorophyll. XIII. Mesochlorin and oxymesoporphyrins, A., 1450.
- Fischer, Hans, and Helberger, H., porphyrin syntheses. XXIX. Syntheses of phyllo- and phylloaetio-porphyrins and related compounds, A., 932.
- Fischer, Hans, Helberger, H., and Hummel, G., porphyrin syntheses. XXVI. "Hæmoporphyrin," A., 1599.

- Fischer, *Hans*, and *Hess, R.*, phylloerythrin in gall-stones of cattle, A., 634.
- Fischer, *Hans*, and *Jordan, E.*, porphyrin syntheses. XXX. Synthesis of some porphyrins of the etioporphyrin III type and of a tetramethyltripropionic acid porphyrin, A., 1449.
- Fischer, *Hans*, and *Jordan, K.*, natural porphyrins. XXV. Conchoporphyrin and the conversion of protoporphyrin of malt into mesoporphyrin. IX., A., 1194.
- Fischer, *Hans*, and *Kutscher, W.*, ring synthesis of porphyrins with substituted and unsaturated side-chains, A., 1298.
- Fischer, *Hans*, *Merka, A.*, and *Plötz, E.*, chlorophyll. X. Behaviour of chlorophyll derivatives with hydrogen iodide and acetic acid and with sulphuric acid, A., 620.
- Fischer, *Hans*, and *Moldenhauer, O.*, chlorophyll. VIII. Chlorin *e* and chloroporphyrins derived from it, A., 482.
- Fischer, *Hans*, and *Moldenhauer, O.*, chlorophyll. XII. Phaeoporphyrins from chlorin *e* and ψ -phylloerythrin, A., 1194.
- Fischer, *Hans*, *Platz, K.*, *Helberger, H.*, and *Nierner, H.*, porphyrin syntheses. XXVII. Synthesis of a porphintripropionic acid, its chlorin and rhodin; coprorrhodin and etiochlorin, A., 621.
- Fischer, *Hans*, and *Rothemund, P.*, pyrrolenitriles and their transformations, A., 1442.
- Fischer, *Hans*, and *Siebert, R.*, porphyrin syntheses. XXXIV. Synthesis of isourpophyrin. I., A., 1599.
- Fischer, *Hans*, *Süs, O.*, and *Weilguny, F. G.*, Curtius degradation in the pyrrole series, A., 1189.
- Fischer, *Helmut*, analytical significance of ageing phenomena, A., 1541.
- Fischer, *H. G. M.*, and *Standard Oil Development Co.*, removal of ash-forming constituents from [hydrocarbon] oil, (P.), B., 1140.
- Fischer, *H. G. M.* See also *Standard Oil Development Co.*
- Fischer, *H. O. L.*, and *Baer, E.*, hydrazino-derivatives of glycer-aldehyde and dihydroxyacetone, A., 1164.
- "acetonisation" with acetone and zinc chloride. II. isopropylidenglyceraldehyde, A., 1164.
- Fischer, *H. O. L.*, *Baer, E.*, and *Feldmann, L.* [with *Ahlström, L.*], enolic derivatives of acetyl and methylglyoxal, A., 1164.
- Fischer, *J.*, superphosphate and liquid manure, B., 1124.
- Fischer, *Josef*. See *Vorländer, D.*
- Fischer, *K.*, continuous production of water-gas, or of producer gas rich in hydrogen or carbon monoxide, from powdered fuel, (P.), B., 752.
- Fischer, *M. H.*, and *Hooker, M. O.*, solvated colloids, A., 696.
- Fischer, *O.* See *Simon, A.*
- Fischer, *O. A.*, and *Channing, R. H.*, jun., purification of zinc sulphate liquors, (P.), B., 1151.
- Fischer, *O. A.* See also *Koenig, H. T.*
- Fischer, *Richard*. See *Peters, F. N.*, jun.
- Fischer, *Robert*, self-registering drop counter (stalagmograph), A., 730.
- detection of saponin in plants with "blood gelatin," A., 1626.
- Fischer, *Robert*, and *Linser, E.*, microchemical detection of arbutin and ursone [ursolic acid] in plants, A., 825.
- Fischer, *Robert*. See also *Koffler, L.*
- Fischer, *U.*, dependence of electrical conductivity of metals on pressure at low temperatures, A., 985.
- Fischer, *Walter*. See *Houben, J.*
- Fischer, *Werner*, determination of mol. wt. by Horstmann's combination of vapour-pressure measurements. I. Molecular formula of auric chloride, A., 142.
- Fischer, *Werner*, and *Klemm, W.*, preparation and characteristic data of [hydrocarbons], A., 677.
- Fischer, *W. M.*, supersaturated solutions. III. Rhythmic precipitates of silver halides and thallous iodide, A., 1516.
- Fischesser, *A.* See *Gen. Aniline Works, Inc.*, and *I. G. Farbenind. A.-G.*
- Fischgold, *H.* See *Petow, H.*
- Fischnick, *A.* See *Sauerwald, F.*
- Fish, *F. H.*, safety device to protect heating units, A., 730.
- initial operation of Imhoff tank and contact beds at Blacksburg, Va., B., 642.
- Fishberg, *E. H.*, viscosity of pathological blood-sera, A., 364.
- rate of disappearance of foreign sugar from the blood, A., 802.
- Fishberg, *E. H.*, and *Dolin, B. T.*, intermediate metabolism of foreign sugars, A., 1313.
- Fishenden, *M.*, heat transmission: modern methods of expressing convection data, B., 743.
- Fisher, *E. A.*, and *Halton, P.*, relation of hydrogen-ion concentration and buffer value to the baking quality of flour. II., B., 213.
- Fisher, *H. C.*, and *Philip Carey Manufacturing Co.*, colouring [and glazing] of granular slate, etc., (P.), B., 420.
- Fisher, *L. W.*, chromite, A., 570.
- Fisher, *M. S.* See *Carpenter, (Sir) H. C. H.*
- Fisher, *R. C.*, and *Parkin, E. A.*, yeast in the death watch beetle, A., 1057.
- Fisher, *V. E.*, effect of temperature on the dough and its influence on the standard baking test, B., 1088.
- Fisk Rubber Co. See *Healy, L. J. D.*
- Fiske, *C. H.*, and *Subbarow, Y.*, phosphorus compounds of muscle and liver, A., 492.
- Fisker, *P. A.* See *Aktieselskapet Fisker & Nielsen.*
- Fitch, *A. A.* See *Twyman, F.*
- Fitch, *W. H.*, [recuperators for] heating furnaces, (P.), B., 4*.
- Fitterer, *G. R.* See *Herty, C. H.*, jun.
- FitzGerald, *F. A. J.*, *Kelleher, J.*, and *Harper Electric Furnace Corporation*, [electric] tunnel kiln and its operation, (P.), B., 774.
- Fitzgerald, *F. A. J.*, *Kelleher, J.*, and *Titania Corporation*, metallurgical furnace, (P.), B., 464.
- Fitzpatrick, *H. D.*, [absorption] refrigerating apparatus, (P.), B., 4.
- Fitzpatrick, *J. J.* See *Brit. Thomson-Houston Co., Ltd.*
- Five, *M. P.*, and *Rozanov, S. N.*, mineralogical characteristics of Russian phosphate deposits and their agronomic utilisation, B., 630.
- Flaegel, *A. V.* See *Algar, J.*
- Flanigan, *G. E.* See *Supplee, G. C.*
- Flanzy, *M.* See *Semichon, L.*
- Flaschenträger, *B.*, gas-volumetric microdetermination of nitrogen by Pregl's method, A., 489.
- Flaschenträger, *B.*, and *Halle, F.*, complex acids of Japan wax; heneicosane- α -dicarboxylic acid, $C_{23}H_{44}O_4$, A., 1407.
- Flasehner, *E.* See *Schindler, W.*
- Flatt, *R.*, determination of peroxides, A., 1144.
- Flatt, *W.* See *Rupe, H.*
- Fleck. See *Graefe, E.*
- Fleck, *A.* See *Imperial Chem. Industries, Ltd.*
- Fleck, *E. E.* See *Jacobs, W. A.*
- Fleckenstein, *E.* See *Mayer, F.*
- Fleckenstein, *G. A.*, *Hanf, E. M.*, *Waterman, M. L.*, and *Singer Manufacturing Co.*, metal [casc]-hardening process, (P.), B., 1076.
- Fleckenstein, *R. H.* See *Langbeyer, A. W.*
- Fleckinger, *J.* See *Rabaté, E.*
- Fleischer, *F.* See *Sauerwald, F.*
- Fleischer, *R.*, and *Teichmann, H.*, effect of nitric oxide on the photo-electric sensitivity of potassium, A., 391.
- increase of photo-electric effect of potassium by means of hydrogen, A., 656.
- Fleischhans, *Z.* See *Heller, K.*
- Fleischmann, *O.* See *Henrich, F.*
- Fleischmann, *W.*, utilisation of the energy of oxidation of alcohol in muscular work, A., 637.
- permeability of leucocytes for ions, A., 1606.
- Fleischmann Co. See *Meyer, E. A.*
- Fleisher, *N. A.*, preparation of alkali cyanides from their carbonates, carbon, and nitrogen, B., 140.
- Fleissner, *H.*, pretreatment of moist fuels, particularly lignites, prior to carbonisation or gasification, (P.), B., 403.
- Fleitmann, *T.* See *Pfeiffer, P.*, and *Staudinger, H.*
- Fleming, *J. S. B.* See *Imperial Chem. Industries, Ltd.*
- Fleming, *R.*, sensitive reaction for cysteine, A., 1420.
- Fleming, *R. H.* See *Allardyce, J.*
- Fletcher, *H. P.* See *Baxter, J.*
- Fletcher, *J. E.*, production of iron and steel castings, (P.), B., 952.
- Fletcher, *J. E.*, and *British Cast Iron Research Association*, cupola furnaces, (P.), B., 951.
- Fletcher, *L.*, and *Westwood, J. B.*, possible sources of error in p_H determination, A., 1009.
- Fletcher, *W. B.* See *Imperial Chem. Industries, Ltd.*
- Fleuret Fabrics, Ltd. See *Lowe, W.*
- Fleury, *P.*, and *Ambert, P.*, precipitation of sugars and polyhydric alcohols as copper-barium hydroxide complexes, A., 196.
- precipitation of sugars and polyhydroxy-compounds as cupro-barium complex compounds, A., 747.
- precipitation of dextrose by copper sulphate and barium hydroxide; carbonisation to sugars and polyoses, A., 1560.
- undetermined carbon and sugar-carbon of normal urine, A., 1610.

- Fleury, P., and Delaunoy, P., Millon's reaction and its application to the examination of protein in urine, A., 239.
 Fleury, P., and Marque, J., action of alkaline potassium mercuric iodide on α - and β -glycérophosphates, A., 61.
 determination of iron in blood by molybdomanganometry, A., 236.
 action of oxidising agents on metallic mercury; analytical applications, A., 444.
 determination of reducing sugars by alkaline mercuric solutions, A., 828.
 Fleury, P. See also Grimberty, L.
 Flexner, L. B., and Barron, E. S. G., oxidation-reduction potentials at carbon and tungsten electrodes, A., 1124.
 Flieg, O., preparation and action of "artificial stall manure," B., 734.
 Flint, F. W. See Smith, A.
 Flint, H. T., determination of the range of frequencies within the group of mechanical waves of an electron, A., 132.
 masses of the proton and electron, A., 658.
 Flint, J. W. See Arnaud, F. W. F.
 Flintermann, G., heat-exchange device, (P.), B., 222.
 Flintkote Co., production of aqueous dispersions of pitch, bitumens, resins, etc., (P.), B., 92.
 forming a pavement, etc., (P.), B., 192.
 Flintkote Co. See also Kirschbraun, L.
 Flintkote Roads, Inc. See Hay, G. S.
 Flodin, H. G., manufacture of iron-chromium alloys, (P.), B., 105.
 reduction of metal oxides, (P.), B., 106.
 production of chrome-iron sponge, (P.), B., 332.
 Flodinjern Aktiebolag, regulating the electrodes in tilting furnaces, (P.), B., 955.
 Flössner, H. See Hinzmann, R.
 Flössner, O., and Rehberg, human body-fluids. I. Anasarous liquid, A., 492.
 Flor, H. H., relationship of environmental factors to growth and pathogenicity to sugar-cane of *Pythium* isolated from roots, A., 968.
 Flor, K. See Salzwirk Heilbronn A.-G.
 Florence, G. See Fournau, E.
 Florentin, J. M. F. D., and Kling, A. J., decomposing and hydrogenating heavy organic compounds to produce light hydrocarbons, (P.), B., 274.
 Florkin, M., proteins. VII. Solubility of fibrinogen in concentrated salt solutions, A., 1201.
 Flosdorf, E. W., and Kistiakovski, G. B., heats of adsorption on catalytically active surfaces, A., 1363.
 Floyd, W. W. See Poth, E. J.
 Flück, H., inactivation of oxidising enzymes of gum arabic, A., 248.
 Flüga A.-G. See Heylandt, C. W. P.
 Flury, F., nutritive significance of the fluorescing constituents of vinegar, A., 246.
 Flynn & Emrich Co. See Huber, C. J.
 Foard, C. W., electron energy losses in mercury vapour, A., 973.
 Focaccia, B. See Giordani, F.
 Fock, V., mechanics of photons, A., 976.
 the virial hypothesis, A., 1234.
 Focke, A. B., principal magnetic susceptibilities of bismuth single crystals, A., 1243.
 Fodor, A., explanation of the irregular cataphoresis of albumin-methylene blue adsorbates by means of the hydrone theory, A., 1119.
 Fodor, A., and Epstein, C., structure of the polypeptide associates obtained from gelatin and gelatin-peptone by means of acetic anhydride. VI., A., 1197.
 Fodor, A., and Frankenthal, L., mode of action of the dehydrases. I. Dehydrase of peas and its so-called co-enzyme, A., 1064.
 Foëx, G., magnetic properties of mesomorphic substances, A., 141.
 diamagnetism of halogen ions, A., 393.
 Föge, H., heat-exchanging apparatus, (P.), B., 846.
 Föhr, F. See Neber, P. W.
 Föhr, M. See Loevenich, J.
 Földes, E., and Tauber, H., determination of blood-chloride, A., 1463.
 Földi, Z., new reaction of the aliphatic double linking, A., 1423.
 Fölling, A., mechanism of ammonium chloride acidosis, A., 496.
 Föppl, O., device for testing constructional material by means of oscillations of flexure of test pieces, (P.), B., 864.
 Foerster, F., clearing of clay turbidities, A., 1114.
 Foerster, F. [with Pressprich, G., and Reuss, W.], action of hydrogen sulphide on solutions of arsenic acid, A., 721.
 Foerster, F., Fricke, E., and Hausswald, R., electrolytic reduction of acid molybdenum solutions. I., A., 432.
 Foerster, F., and Gäbler, K., deposition potential of copper from solutions of its simple salts containing the corresponding free acid, A., 707.
 Fogelberg, J. M. See Williams, J. W.
 Foglesong, J. E., and Newell, I. L., reduction of nitropyrocatechols, A., 469.
 Foglia, V. G. See Houssay, B. A.
 Fohlen, J. L., manufacture of liquid hydrocarbons, (P.), B., 406.
 production of light hydrocarbons by destructive hydrogenation of carbonaceous materials, (P.), B., 938.
 Fokin, A. S. See Rabinovitch, M.
 Folin, O., analysis of unlaked blood, A., 630.
 Folin, O. [with Svedberg, A., and Jones, K.], determination of uric acid in blood, A., 630.
 Folin, O., and Svedberg, A., determination of carbamide in blood, A., 1305.
 micro-determination of non-protein-nitrogen, carbamide, uric acid, and sugar in unlaked blood, A., 1305.
 Folkers, K. See Adkins, H.
 Follansbee, E. M., accelerated ageing v. shelf ageing [of rubber], B., 70.
 Follansbee Bros. Co. See Freeland, E. M.
 Folley, S. J., improved design of Van Slyke apparatus for the determination of amino-nitrogen, A., 1326, 1486.
 Folley, S. J., and Henry, D. C., preparation of colloidal solutions of nickel in dry acetone and some preliminary observations on their stability, A., 1112.
 Folliet, A., catalytic synthesis of liquid and gaseous hydrocarbons, (P.), B., 753.
 Folliet, A., and Sainderlechin, N., treatment of [zinc] ores, (P.), B., 565.
 Folta, E., cleaning of filters or strainers, (P.), B., 126, 846*.
 Foltz, I. W., furnaces, (P.), B., 689.
 Fomenko, V., Fergana crude oils, B., 595.
 Fomin, P. See Minaev, V. I.
 Fomin, S. W., influence of training on the mineral substance of muscle, A., 494.
 Fonda, G. R. See Brit. Thomson-Houston Co., Ltd.
 Fonder, J. F., variations in potassium content of lucerne due to stage of growth and soil type, and the relationship of potassium and calcium in plants grown on different soil types, B., 28.
 Fong, W. Y., and Cruess, W. V., effect of p_H value on the inactivation temperature of fruit oxidase, A., 640.
 Fong, Y. S., manufacture of sodium glutamate, (P.), B., 612.
 Fonrobert, E., abietic anhydride, B., 110.
 Fonrobert, E. See also X., X.
 Fontaine, alteration of the internal condition of potamio fish during reproduction, A., 1613.
 internal condition of the lamprey (*Petromyzon marinus*); its variations as a function of those of the environment, A., 1613.
 Fontès, G., and Thivolle, L., can immediately-reducing carbohydrate of the blood be determined by Hagedorn and Jensen's method? A., 237.
 validity of blood-sugar determinations. V. Justification for the determination of blood-sugar in the plasma, A., 631.
 validity of blood-sugar determinations. VI. and VIII. Variation in results obtained by deproteinisation with tungstic acid and mercuric nitrate. VII. Sugar in the plasma. IX. Phenomenon of "mercurial dilution," A., 801.
 Fontes, J. See De Mira, F.
 Food Colouring Materials Sub-Committee of the Standing Committee on the uniformity of analytical methods, report on determination of arsenic, B., 638.
 Foodstuffs Irradiation Co., Ltd. See Scheidt, E. O.
 Foohey, W. L. See Nieuwland, J. A.
 Foote, F. G., Blake, F. C., and France, W. G., adsorption at crystal-solution interfaces. V. Effect of adsorbed dye on the lattice size of potassium alum crystals, A., 1514.
 Foote, H. W., and Dixon, J. K., adsorption of water and benzene vapours by manganese dioxide, A., 990.
 Foote, H. W., and Vance, J. E., system sodium iodate-sodium nitrate-water, A., 36.
 system sodium iodate-sodium sulphate-water, A., 544.
 Forbes, D. H. S., theory of molecular attraction and its application to paints, B., 725.

- Forbes, G. S. See Leighton, P. A.
- Force, J. See Brit. Thomson-Houston Co., Ltd.
- Ford, G. W. See Hanson, D.
- Ford, J. G. See Westinghouse Electric & Manuf. Co.
- Ford, J. S., and Murray, F., fuel briquettes, (P.), B., 803.
- Ford, S. G., and Adams, R., cyclobutylalkylacetic [β -cyclobutyl- α -alkylpropionic] acids and their bactericidal action towards *B. leprae*. XVI., A., 772.
- Ford, S. G., and Marvel, C. S., [preparation of] lauryl alcohol, A., 736.
- Forestal Land, Timber, & Railways Co., Ltd., and Phillips, R. O., production of tannin extracts and cellulose or pulp, (P.), B., 1041.
- Foresti, B., catalysis by finely-divided metals. V. Adsorption isotherm and condition of adsorbed hydrogen, A., 1380.
- Forestier, H., effect of the magnetic field on the rate of solution of iron in cupric chloride solution, A., 1002.
- Foret, (Mlle.) J., calcium aluminonitrate, A., 1386.
- Foret, (Mlle.) J., calcium chloro-, bromo-, and iodo-aluminates, A., 1537.
- Fornwall, H. J. See Bingham, E. C.
- Forrer, R., problem of the two Curie points, A., 529.
- Forrer, R., magnetic moments of alloys and measurement of mean atomic moments, A., 981.
- Forrer, R., and Schneider, J., production by annealing of the two states of pure iron stable at ordinary temperature, A., 985.
- Forrer, R. See also Weiss, Pierre.
- Forrest, F. See Gen. Electric Co.
- Forrest, K. A. See Mount, W. D.
- Forró, (Frl.) M., high-temperature absorption spectra of alkali halide phosphors, A., 11.
- Forró, (Frl.) M., absorption spectra of six new alkali halide phosphors with the addition of thallium, A., 11.
- Forró, (Frl.) M., and Patai, E., measurement of the contact potentials of some metals, A., 1102.
- Forsberg, E. A., and De Laval Separator Co., [discharge of liquids from] centrifugal separators, (P.), B., 400*.
- Forscey, L. A. See Taylor, T. W. J.
- Forster, H. von. See Metallges. A.-G.
- Forster, N., and Super-Centrifugal Engineers, Ltd., centrifugal machines, (P.), B., 170.
- Forsyth, R., and Pyman, F. L., nitration of phenyl substituents of heterocyclic nuclei, A., 618.
- Forsythe, W. E., accurate measurement of high temperatures, B., 123.
- Forsythe, W. E., and Barnes, B. T., quartz monochromator and its spectral transmission, A., 1549.
- Forsythe, W. E., and Christison, F., ultra-violet radiation from the sun and heated tungsten, A., 1076.
- Forsythe, W. E., and Easley, M. A., spectrum of the tungsten mercury arc, A., 1228.
- Fort, R., and Hinshelwood, C. N., kinetics of the oxidation of gaseous benzene, A., 709.
- Fort, R., kinetics of gaseous oxidation reactions, A., 1529.
- Forwood, G. F., Taplay, J. G., and United Kingdom Oil Co., Ltd., cracking of hydrocarbons, (P.), B., 937.
- Fosbinder, R. J., vacuum tube potentiometer for the determination of the true *E.M.F.* of a high-resistance cell, A., 883.
- Fosbinder, R. J., and Schoonover, J., measurement of glass electrode potentials, A., 1376.
- Foshag, W. F., mineralogy and geology of Cerro Mercado, Durango, Mexico, A., 1397.
- Fosse, R., Brunel, A., and De Graeve, P., fermentation of uric acid, produced by animal livers, A., 250.
- Fosse, R., determination of uric acid based on the carbamide produced by fermentation and hydrolysis, A., 828.
- Fosse, R., quantitative conversion of uric acid into allantoin in the horse's liver, A., 1470.
- Foster, B. W. See Imperial Chem. Industries, Ltd.
- Foster, D., and Bozorth, R. M., magnetisation curve of single iron crystals, A., 673.
- Foster, E. J. See Woodcrete, Ltd.
- Foster, G. E. See Fairbourne, A.
- Foster, G. L., and Gutman, A. B., fate of di-iodotyrosine in the animal organism, A., 1060.
- Foster, J. S., Stark effect, A., 830.
- Foster, M. D., chemical character of the hot springs of Arkansas and Virginia, A., 1014.
- Foster, M. F. See Bollmann, H.
- Foster, S. C. See Brydges, W.
- Foster, V. See Mellon, M. G.
- Foster Wheeler Corporation, treatment of [mineral] oil; oil stills [for petroleum, etc.], (P.), B., 178.
- Foster Wheeler Corporation, heating and cracking of [petroleum] oils, (P.), B., 231.
- Foster Wheeler Corporation. See also Primrose, J., and Sieder, E. N.
- Fothergill, R. E. See Gilman, H.
- Fotjew, S., and Jakimanskij, W., chemical characteristics of different celluloses, B., 96.
- Foulds, R. P., Marsh, J. T., Wood, F. C., and Tootal Broadhurst Lee Co., Ltd., [treatment of] textile materials, (P.), B., 11*.
- Foulk, C. W. See Caley, E. R.
- Foulon, A., adsorption of gases and vapours on active charcoal and recovery of the adsorbed products, B., 885.
- Found, C. G. See Brit. Thomson-Houston Co., Ltd., and Langmuir, I.
- Fourment, M., apparatus for continuous treatment of metal bodies, (P.), B., 427*.
- Fourment, M., [electric induction] apparatus for treatment of gases at high temperatures, (P.), B., 723*.
- Fourneau, E., and Barrelet, C. E., three homologues of ephedrine, A., 85, 339*.
- Fourneau, E., local anæsthetics derived from piperazine, A., 351.
- Fourneau, E., Benoit, (Mlle.) E., and Firmenich, R., synthesis of an isomeric and a homologue of ephedrine, A., 1430.
- Fourneau, E., Benoit, (Mlle.) G., and Firmenich, R., local anæsthetics; derivatives of amino-alcohols with a primary alcoholic group, A., 1418.
- Fourneau, E., and Brydowna, (Mlle.) W., aminophenylamino-alcohols, A., 1178.
- Fourneau, E., and Florence, G., chloral compounds, A., 746.
- Fourneau, E., and Sabetay, S., preparation of mono-esters of dicarboxylic acids. II., A., 65.
- Fourneau, E., and Samdahl, B., local anæsthetics derived from piperazine, A., 1597.
- Fourneau, E., Tréfouel, J., Tréfouel, (Mme.) J., and Benoit, (Mlle.) G., preparation of compounds for therapeutic trial. I. Amino-alcohols. II. Derivatives of atophan. III. Derivatives of carbostyryl. IV. Quinoline derivatives and arsenicals, A., 1046.
- Fourneau, E., Tréfouel, J., Tréfouel, (Mme.) J., and Wancoule, A., *o*- and *p*-Bz-chloronitroquinolines, A., 1296.
- Fourneau, E. See also Soc. des Usines Chim. Rhône-Poulenc.
- Fournier. See Lyon, R.
- Fournier, G., arithmetical relation between at. wt. and atomic number, A., 269.
- Fournier, G., relation between "filiation capacity" of radioactive atoms and the velocities of the α -rays they emit, A., 976.
- Fournier, G., nuclear classification of atoms in relation to their possible genesis and their radioactive disintegration, A., 1087.
- Fournier, G., and Guillot, M., radiation responsible for the final rise in the absorption curves obtained with radium-(D+E), A., 130.
- Fournier, G. See also Curie, (Mme.) P.
- Fournier, M. See Guyot, A.
- Fousek, J., preservation of eggs and the yolks and whites thereof, (P.), B., 1089.
- Fowle, F. G., ozone in northern and southern hemispheres, A., 315.
- Fowler, A. See Carrier Eng. Co., Ltd., and Robertson, K. J. R.
- Fowler, C., manufacture of cod-liver oil and similar oils, (P.), B., 468.
- Fowler, E. J., Baird, D., and Nichols Copper Co., multiple-hearth furnace, (P.), B., 773.
- Fowler, R. H., possible explanation of the selective photo-electric effect, A., 1079.
- Fowler, R. H., speculation concerning the α -, β -, and γ -rays of radium-B, -C, and -C'. I. Revised theory of the internal absorption coefficient, A., 1338.
- Fox, A. L. See Whitmore, F. C.
- Fox, C. G., treatment of stones or stony materials, cement, concrete, bricks, road surfaces, etc., (P.), B., 666.
- Fox, C. G., emulsification [of tar, etc.], (P.), B., 978.
- Fox, C. G., treatment of road-making materials, (P.), B., 1031.
- Fox, C. J. G. See Cross, C. R.
- Fox, D. L., and Turner, E. E., scission of diaryl ethers and related compounds by means of piperidine. IV. Elimination of halogen atoms and scission reactions during substitution processes, A., 909.
- Fox, D. L., and Turner, E. E., scission of diaryl ethers and related compounds by means of piperidine. V. Nitration of methyl, dimethyl, and poly-halogeno-derivatives of diphenyl ether, A., 1283.

- Fox, E. L. See Carpenter, T. M.
 Fox, G. W. See Headrick, L. B.
 Fox, H. M., and Ramage, H., spectrographic analysis of animal tissues, A., 1009.
 Fox, J. J. See Robertson, (Sir) R.
 Foxboro Co. See Hall, M. B.
 Foxwell, G. E., recovery of ammonia [in gas manufacture] by the semi-direct process, B., 89.
 Foy, F., electrical apparatus for heating liquids, (P.), B., 996.
 Fractionator Co. See D'Yarmett, E. C.
 Främbis, H. See Rasselsteiner Eisenwerks-Ges. A.-G.
 Fraenkel, L., and Fels, E., corpus luteum and sexual hormone, A., 1070.
 Fränkel, S., and Mathis, H., unsaponifiable matter in egg-yolk oil. I., A., 1203.
 apparatus for distillation in a high vacuum, A., 1549.
 Fränkel, S. See also Soc. of Chem. Ind. in Basle.
 Fraenkel, W., age-hardening aluminium alloys, B., 562.
 Fraenkel, W., and Wachsmuth, E., kinetic measurement of a transformation reaction in solid metals [aluminium-zinc alloys], B., 717.
 Fraenkel, W., and Wolf, A., transitions in the solid state of silver-cadmium alloys, A., 681.
 Fraenkel, W. See also Lorenz, R.
 Fränkl, M., condensation of vapours from air and gases by cooling, (P.), B., 492.
 Fränz, H., counting of α - and H -particles with the multiplication counter, A., 130.
 disintegration of boron by means of α -particles from radium-C', A., 1338.
 Frage, K. See Wieland, H.
 Frahm, E. D. G., and Boogaert, H. L., determination of diphenylchloroarsino and diphenylarsine oxide, A., 941.
 Frais, S., [hydrometric device for testing] electric storage batteries, (P.), B., 619.
 France, A., washing of coal and other minerals, (P.), B., 600*.
 apparatus for washing minerals by means of liquid streams, (P.), B., 696*.
 France, R. W., absorption spectrum of lithium vapour, A., 1487.
 France, W. G., crystal structure and adsorption from solution, A., 991.
 France, W. G. See also Foote, F. G., Lash, M. E., and Purdy, J. M.
 Franceschetti, A., and Wieland, H., determination of the protein content of intraocular fluids with the nephelometer. I. and II., A., 492.
 Franchot, R., and Ferro Chemicals, Inc., iron smelting, (P.), B., 1033.
 Francis, A. G., Harvey, C. O., and Buchan, J. L., determination of small quantities of lead with special reference to urine and biological materials, A., 371.
 Francis, C. K., explosion of gasoline and oxygen, B., 976.
 Francis, F., Piper, S. H., and Malkin, T., n -fatty acids, A., 1161.
 Franck, H. H., and Heimann, H., preparation of metallic cyanamides or their mixtures, (P.), B., 663*.
 Franck, H. H., and Meppen, B., reaction of calcium cyanamide with carbon dioxide at high temperatures, B., 945.
 Franck, H. H. See also Caro, N.
 Franck, J., spectroscopy and molecular structure. I. Determination of thermochemical magnitudes from spectroscopic data, A., 1343.
 Franck, J., and Rabinovitch, E., heats of activation of bimolecular gas reactions; the reaction between chlorine and hydrogen, A., 1378.
 Franck, J., and Sponer, H., determination of work of dissociation of molecules from band spectra, A., 4.
 Francke, B. See Gen. Aniline Works, Inc.
 Francke, G., resistance of haemoglobin to sodium hydroxide, A., 1199.
 action of blood-catalase, A., 1200.
 Franco, M. R. See Guglielmelli, L.
 François, F., basicity of selenoxanthhydrols, A., 487.
 action of selenoxanthhydrol on carbamides and carbamic esters, A., 628.
 action of selenoxanthhydrol on β -diketones and ethyl acetate, A., 893.
 François, M., dissociation of the compounds $\text{HgBr}_2 \cdot 2\text{NH}_3$ and $\text{HgCl}_2 \cdot 2\text{NH}_3$, A., 162*.
 action of ammonia on $\text{HgBr}_2 \cdot 2\text{NH}_3$; formation of NH_2HgBr and $\text{NH}_2\text{Hg}_2\text{Br}$, A., 307.
 François, M., action of ammonia on $\text{HgCl}_2 \cdot 2\text{NH}_3$, A., 557, 1138.
 formation of monomercurammonium bromide and dimercurammonium bromide, A., 557.
 preparation of mercurammonium bromides and chlorides; crystalline dimercurammonium bromide and chloride, A., 1006, 1262*.
 François, M., and Seguin, L., determination of methylene-blue, A., 234*.
 determination of sodium hypophosphite, B., 371.
 François, M. T., neutralisation of castor oils, B., 674.
 François, M. T. See also Perrot, E.
 Frank, A. R. See Caro, N.
 Frank, E. See Hückel, W.
 Frank, F., coating of paper-pulp vessels for protection thereof against the action of moisture, fat, soap, etc., (P.), B., 505*.
 Frank, G. von, and Caro, W., cellulose oxalates, B., 812.
 Frank, G. von, and Mendrzyk, H., crystalline product from cellulose cinnamate, A., 750.
 Frank, J. J. See Brit. Thomson-Houston Co., Ltd.
 Frank, K., gas dehydration, B., 975.
 Frank, N. H., theory of the metallic change of resistance in a magnetic field, A., 529.
 theory of galvanomagnetic, thermomagnetic, and thermoelectric phenomena in metals, A., 1243.
 change in resistance of metals in strong magnetic fields, A., 1354.
 Franke, O., and Riediger, O., non-validity of Ohm's law for alternating-current circuits containing capacity and resistance, A., 164.
 Franke, W., equilibrium in the system ferric iron-quinol, A., 860.
 Franke, W. See also Meyer, Julius, and Slotta, R. K.
 Frankel, M., tendency to association of amino-acids in aqueous solution, A., 409.
 Frankel, M., and Kuk, S., preparation and molecular size of gelatin-peptone, A., 1198.
 preparation of prolylalanine and prolylpeptides, A., 1563.
 Frankenberger, E., coagulation of clouds and mist, A., 1367.
 Frankenberger, E. See also Wigand, A.
 Frankenberger, W. [with Klinkhardt, H., Steigerwald, C., and Zimmermann, W.], photochemical reaction between hydrogen and carbon monoxide in presence of excited mercury atoms, and the optical detection of the reaction products, A., 1383.
 Frankenburger, W., Roessler, G., and Agfa Anseo Corporation, preparation of photosensitive photographic emulsions, (P.), B., 122*.
 Frankenburger, W., and Zimmermann, W., luminosity in the gas space in heterogeneous reactions, A., 1500.
 Frankenburger, W. See also I. G. Farbenind. A.-G., Klinkhardt, H., Mittasch, A., and Weyde, E.
 Frankenstein, W. See Hüttig, G. F.
 Frankenthal, L. See Fodor, A., and Reifenberg, A.
 Frankforter, C. J., and Detrick, J. N., chemical changes in clay and clay-lime mixtures on firing, B., 144.
 Frankfurter Gasgesellschaft, and Hoelzer, H. W., production of plastic materials for use in manufacture of lacquers, covering materials, binding agents, etc., (P.), B., 872.
 Franklin, (Miss) D., and Laird, E. R., Raman effect in trimethyl-ethylene, A., 1237.
 Franklin, R. G. See Allmand, A. J., and Imperial Chem. Industries, Ltd.
 Frankstein, M. I. See Gelstein, E. M.
 Franzen, A., action of Grignard reagents on naphthaquinones. II. Action of magnesium phenyl bromide on α - and β -naphthaquinones, A., 214.
 Franz, E. See I. G. Farbenind. A.-G.
 Franz, F. C., and Aluminum Co. of America, production of calcined bauxite, (P.), B., 1028.
 Franz, H. See Meissner, W., and Schenck, R.
 Franzen, B. G. See Herrmann, J.
 Fraps, G. S., fertilising value of sewage sludge, B., 295.
 Fraps, G. S., and Carlyle, E. C., basicity of Texas soils, B., 474.
 Fraps, G. S., and Sterges, A. J., nitrite production in soils, B., 921.
 Fraps, G. S. See also Traub, H. P.
 Fraser, C. G. See Thomson, G. P.
 Fraser, O. B. J. See McKay, R. J.
 Fraser, T. See Yancey, H. F.
 Fraser, W., and Davidson, W., apparatus to control the behaviour of coal or other material while being carbonised in a retort, in order to facilitate the discharging of it, B., 6.
 Frateur, J., brittle straw in rye, B., 278.

- Frattini, B., and Maino, M. M., follicular hormone: preparation in crystallised, water-soluble form; determination, A., 505.
- Frauentorfer, H. See Faltis, F.
- Fraymann, M., luminescence at the electrodes during electrolysis, A., 1346.
- Frazer, J. C. W., eighth report of the Committee on contact catalysis, A., 1531.
- Frazier, R. B., and Reid, E. W., use of ethylene dichloride in lacquer formulation, B., 726.
- Frear, O. E., determination of sulphur in plants, A., 824.
- Fréchette, H., and Phillips, J. G., treatment of certain Western [Canadian] clays to overcome drying defects, B., 558.
- Fred, E. B. See Hopkins, E. W., Rosa, D. G., Scott, S. W., Stiles, H. R., and Wilson, P. W.
- Fredenhagen, K., electrolytic production of fluorine, (P.), B., 662.
- Fredenhagen, K. [with Kriehoff, K., and Freytag-Loringhofen, B. von], solubility products of inorganic salts in liquid ammonia compared with those of the same salts in other solvents with especial reference to their dielectric constants, A., 537.
- Fredenhagen, K., and Cadenbach, G., solubilities and conductivities of inorganic and organic compounds in hydrogen fluoride, A., 421.
- Fredenhagen, K., and Maske, F., dielectric constant and dipole moment of gaseous hydrogen cyanide, A., 1501.
- Frederick, L. T., mica testing apparatus, (P.), B., 189.
- Fredga, A., selenium derivatives of aliphatic acids, A., 586.
- α -selenocynoacrylic acid, A., 1170.
- cis*- and *trans*-tetrahydroselenophen-2:5-dicarboxylic acids, A., 1196.
- Fredholm, H. See Ohlsson, E.
- Fredrickson, W. R. See Bell, R. M.
- Fredriksen, H. M., metal alloy [silver-copper] for electrical contacts, (P.), B., 150.
- Freeborn, S. B. See Vansell, G. H.
- Freed, S., existence of electronic isomerides in the solid state and in solution; magnetic susceptibility of $\text{Sm}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$ and its variations with temperature, A., 1102.
- Freed, S., and Kasper, C., magnetic susceptibility of manganocyanide ion, A., 676.
- transference phenomena and existence of complex ions as interpreted by their magneto-chemical behaviour, A., 1123.
- diamagnetic susceptibility of dissolved substances, A., 1507.
- Freed, S., and Spedding, F. H., line spectra of ions in solid state in visible and ultra-violet regions of the spectrum; absorption spectra of $\text{GdBr}_3 \cdot 6\text{H}_2\text{O}$ at the ordinary temperature and at that of liquid air and their comparison with those of $\text{GdCl}_3 \cdot 6\text{H}_2\text{O}$, A., 1497.
- Freedman, P., [manufacture of] cathodes for thermionic devices, (P.), B., 428.
- metallic-vapour and gaseous arc-discharge devices, (P.), B., 776.
- preparation of emulsions, suspensions, and colloidal dispersions, (P.), B., 887.
- Freeland, D. M., air-free water for sulphur dioxide determinations in foods, B., 796.
- Freeland, E. M., McGough, F., and Follansbee Bros. Co., apparatus for heating [metal sheets, etc.], (P.), B., 745.
- Freeman, B., Livingston, A. E., and Richards, A. N., concentration of chlorides in glomerular urine from frogs, A., 1205.
- Freeman, H. See Herty, C. H., jun.
- Freeman, H. B. See Summers & Sons, Ltd., J.
- Freeman, H. C., detecting and determining the quantity of moisture in a substance, (P.), B., 1097.
- Freeman, I. M., luminescence of argon in a side branch of a discharge tube, A., 389.
- Freeman, I. M. See also Eckstein, L.
- Freeman, J. R., jun., and Quick, G. W., tensile properties of rail and some other steels at elevated temperatures, B., 716.
- Freeman, J. R., jun., Scherrer, J. A., and Rosenberg, S. J., reliability of fusible tin boiler plugs in service, B., 267.
- Freeman, L. J., spectra of trebly-ionised oxygen (O IV) and trebly-ionised nitrogen (N IV), A., 829.
- Freeman, M., action of dilute formaldehyde solution on proteins and protein derivatives, A., 1604.
- Freeman, M. See also Holden, H. F., and Kellaway, C. H.
- Freeman, N. E., hoxosediphosphate in muscle activity, A., 637.
- Freeman, R. G., jun. See Karshan, M.
- Frees Co., H. E. See Mitchel, C. A.
- Frei, W., and Emmerson, M. A., calcium content of the serum of cattle with special reference to the influence of the sexual organs, A., 1607.
- Freiberg, G. W., production of acetone and butyl alcohol by fermentation, (P.), B., 1002.
- Freiberger, M., apparatus for liquid treatment of textile materials, (P.), B., 657.
- Freiberger, M. [with Vass, Z. von, and Hönig, L.], determination of the degree of purity of cellulose fibres, B., 654.
- Freiberger, M., and Gesellschaft für Textilveredelung m.b.H. "Getevau," apparatus for washing woven fabrics, (P.), B., 101.
- Freiberger Papierfabrik zu Weissenborn, making paper of definite thickness, (P.), B., 554.
- Freins Jourdain Monneret Société Anonyme, apparatus for removing oil from gases, (P.), B., 695.
- Freise, F. W., mineral constituents of the conglomerates of Diamantina, Minas Geraes, Brazil, A., 1398.
- low-temperature treatment of Brazilian coals, B., 226.
- Frejka, J., apparatus for catalytic hydrogenation, A., 1014.
- Frejka, J., and Zahlová, (Mlle.) L., compounds of nickel and cobalt salts with β -diaminobutane, A., 1540.
- Fremdling, H. See Loevenich, J.
- Fremi, M. See Quilico, A.
- French, C. C., basic catalysis in the decomposition of diacetone alcohol, A., 42.
- French, H. J., Kahlbaum, W., and Peterson, A. A., flow characteristics of special iron-nickel-chromium alloys and some steels at elevated temperatures, B., 865.
- French, M. H. See Woodman, H. E.
- French, R. B., use of preservatives to prevent loss of nitrogen from cow excreta during the day of collection, B., 1166.
- Frenkel, G., [carrier for] manufacture of films and foils, etc., (P.), B., 859.
- manufacture of [composite] films, foils, etc., (P.), B., 859.
- Frenkel, I., manufacture of viscose, (P.), B., 236.
- Frenkel, J., Heitler-London theory of homopolar molecules, A., 9.
- electron theory of metals. I. and II., A., 17, 977.
- theory of resonance widening of spectral lines, A., 126.
- quantum-mechanical transference of energy between atomic systems, A., 132.
- correct formulation of Pauli's exclusion principle, A., 272.
- revision of classical [kinetic] theory of collision effects in gases, A., 403.
- velocity of unimolecular reactions, A., 865.
- Frenkel, J., and Semenov, N., chemical forces, molecular attraction, and viscosity of monatomic gases, A., 404.
- Frenzel, A. See Hofmann, U.
- Fréreljacque, M., sulphonic esters; configuration of the nitrogen atom, A., 1567.
- Freri, M. See Quilico, A.
- Frerichs, G., evaluation of tincture of iodine, B., 881.
- Frerichs, R., new terms in the oxygen arc spectrum, A., 2.
- singlet system of the oxygen arc spectrum and the origin of the green auroral line, A., 1328.
- Frerichs, R., and Campbell, J. S., experimental evidence for the existence of quadrupole radiation, A., 1225.
- Frers, J. N., natural periodic system of non-ionogenic compounds, A., 400.
- Frese, E. See I. G. Farbenind. A.-G.
- Fresenius, L., effect on crops and acidity condition of soils of amounts of lime calculated from the exchange acidity and from titration curves, B., 833.
- Fresenius, L., and Fuchs, O., calculation of mineral water analyses, A., 1541.
- Fresenius, L., and Lederer, K., phenolphthalein and pyrocatechol-o-carboxylic acid reactions for the detection of "activity" of mineral waters, A., 1551.
- Fresenius, L. See also Lemmermann, O.
- Freud, B. B., and Freud, H. Z., theory of the ring method for determination of surface tension, A., 853.
- Freud, H. Z. See Freud, B. B.
- Freudenberg, K., cellobiosan and cellulose, A., 198.
- new form of isomerism in the sugar group, A., 894.
- Freudenberg, K., Andersen, C. C., Go, Y., Friedrich, K., and Richtmyer, N. W., acetone [isopropylidene] sugars and other carbohydrate compounds. XX. Synthesis of methylated cellobiose; crystalline methylcellobiose from cellulose; gentiobiose from amygdalin, A., 1412.
- Freudenberg, K., and Brnch, E., [determination of mol. wt. in glacial acetic acid], A., 457.
- Freudenberg, K., Bruch, E., and Rau, H., lignin and cellulose. XII. Cellobiosan and cellulose, A., 198.

- Freudenberg, K., Dirscherl, W., and Eyer, H., chemistry of insulin. V., A., 646.
- Freudenberg, K., Kuhn, W., and Bumann, I. [with Sohns, F.], steric series. XI. Configuration of the halogenopropionic acids and alanine. A., 1556.
- Freudenberg, K., Kuhn, W., Dürr, W., Bolz, F., and Steinbrunn, G., lignin and cellulose. XIV. Hydrolysis of polysaccharides, A., 1025.
- Freudenberg, K., and Scholz, Hellmut, acetone [isopropylidene] sugars and other carbohydrate compounds. XXII. Cyclic acetates in the sugar group, A., 1412.
- Freudenberg, K., Toepfer, H., and Zaheer, S. H., acetone [isopropylidene] sugars and other carbohydrate compounds. XXI. Anhydroglucose, A., 1411.
- Freudenberg, K. See also Kuhn, W.
- Freudenberg, W. See Bergmann, M.
- Freudenberger, H. See Staudinger, H.
- Freudenburgh, M. N. See Westinghouse Lamp Co.
- Freund, E., washing, dyeing, mixing, or other machines in which the materials treated are subject to kneading or squeezing action. (P.), B., 506.
- Freund, M., and Becker, E., self-carburization of industrial gases from brown coal, B., 975.
- Freund, R., can shellac be substituted by cellulose lacquer for wood polishing? B., 156.
- Freundler, P., Piaux, L., and Pilaud, (Mlle.) M., quaternary ammonium iodide derivatives of ethyl iodoacetate, A., 1563.
- Freundlich, H., surface forces and chemical equilibrium, A., 687.
- Freundlich, H., and Juliusburger, F., change of bromoethylamine into dimethyleine hydrobromide and the reverse reaction in the presence of charcoal, A., 551.
- Freundlich, H., and Kross, W., titanium dioxide sols, A., 1113.
- Freundlich, H., and Krüger, D., diffusion of organic substances in aqueous solutions of electrolytes, A., 1106.
- Freundlich, H., and Sachs, W., absorption of liquids by disperse materials and its relation to hydrophilic properties, swelling, and sedimentation, A., 152.
- Frew, H. K. See Imperial Chem. Industries, Ltd.
- Frey, C. N. See Brown, E. B., and Light, R. F.
- Frey, E. K. See Kraut, H.
- Frey, G. S. son, conductivity of crystalline lead sulphide, A., 1355.
- Frey, H., two-chamber, regenerative, direct gas-fired, steel-heating furnace, B., 329.
- Frey, K. See Staudinger, H.
- Frey, R. W., and Clarke, I. D., wearing quality and other properties of vegetable-tanned and of chrome-retanned sole leather, B., 628.
- Frey, R. W., and United States, tanning preparation, (P.), B., 1081.
- Freytag-Loringhofen, B. von. See Fredenhagen, K.
- Frey-Wyssling, A., I. Precipitation of silicic acid in plants. II. Comparison of the precipitation of silicic acid and of calcium salts in plants, A., 1326.
- Friauf, J. B. See Lewis, B.
- Fricke, A., and Hawenta-Platten-Ges.m.b.H., production of well-adhering coatings on asbestos-cement-slate plates, (P.), B., 1112*.
- Fricke, A. See also Hawenta-Platten-Ges.m.b.H.
- Fricke, E. See Foerster, F.
- Fricke, R., transformations of hydrated oxides, A., 34.
- Fricke, R., and Jucatis, P., systems $\text{Al}_2\text{O}_3\text{--Na}_2\text{O--H}_2\text{O}$ and $\text{Al}_2\text{O}_3\text{--K}_2\text{O--H}_2\text{O}$, A., 1374.
- Fricke, R., and Lüke, J., swelling work and heat of swelling, A., 542.
- work and heat of swelling, A., 1118.
- Fricke, R., and Meyring, K., gravimetric determination of aluminium as oxide, A., 727.
- Fricke, R. See also Havestadt, L.
- Fridman, A. I. See Golovin, P. V.
- Fridrichson, J., resonance radiation of manganese vapour, A., 1227.
- Friedel, G., mesomorphic state, A., 1355.
- Friedel, G., and Weil, R., influence of the symmetry of the medium on the symmetry of crystalline form, A., 279.
- Friedemann, T. E. See Shaffer, P. A.
- Friedemann, W. G., composting barnyard manure with sulphur and rock phosphate, B., 295, 784.
- Friederich, E. See Gen. Electric Co.
- Friederich, W., manufacture of nitrous oxide, (P.), B., 102.
- Friedländer, D., Meursing, A., and Gratama, E. J., manufacture of sensitised velvet paper for photographic uses, (P.), B., 1047.
- Friedländer, E. See Heymann, E.
- Friedländer, G., determination of arsenic in Natrium cacodylicum, D.A.B. VI., B., 218.
- Friedlander, H., and Janser, A., substitute for hard paper, ebonite, fibre, etc., and its preparation, (P.), B., 761*.
- Friedman, H. B., and Fulmer, H. K., bimolecular reactions, A., 1527.
- Friedman, H. B., and La Mer, V. K., weight burette, A., 567.
- Friedman, H. B. See also La Mer, V. K.
- Friedman, L., diffusion of non-electrolytes in gelatin gels, A., 693.
- structure of agar gels from studies of diffusion, A., 693.
- Friedman, L., and Kraemer, E. O., structure of gelatin gels from studies of diffusion, A., 693.
- Friedrich, A., micro-determination of methylimides, A., 489.
- Friedrich, H., purifying diffusion juices by means of small quantities of lime and at temperatures above 100°, B., 75.
- Friedrich, J., treatment of beet juice for manufacture of sugar, (P.), B., 1085.
- Friedrich, K. See Freudenberg, K., and Thilo, E.
- Friedrich, M. E. P., and Marvel, C. S., reaction between alkali alkyls and quaternary arsonium compounds, A., 330.
- Friedrich, W., foam-producing apparatus, (P.), B., 538.
- Friedrichs, F., Claisen fractionating apparatus with replaceable sections, A., 186.
- vacuum-distillation apparatus, A., 447.
- distillation apparatus for water, A., 884.
- aspirator for constant gas pressure, A., 1266.
- Friedrichsen, J. See Dilthey, W.
- Friedsam, A. See Braun, J. von.
- Friemann, M. G. See Zelinski, N. D.
- Friemann & Wolf Ges.m.b.H., pasting of grid strips for the manufacture of accumulator plates, (P.), B., 673.
- Friend, J. A. N., solubility of potassium selenate in water between 0° and 100°, A., 149.
- solubility of neodymium sulphate in water and in aqueous sulphuric acid, A., 1107.
- solubility of magnesium neodymium nitrate in water, nitric acid, and magnesium nitrate solutions, A., 1246.
- Friend, J. A. N., Colley, A. T. W., and Hayes, R. S., vapour density of zirconium tetrachloride, A., 535.
- Friend, J. A. N., and Vallance, R. H., occurrence of iron pentacarbonyl in coal gas stored under pressure for 30 years, A., 724.
- Fries, E. C., and Studebaker Corporation, removal of varnish and enamel coatings, (P.), B., 469.
- Friese, H., degradation products of lignin soluble in water. II., A., 1169.
- Friese, R. W., Meyer, J. H., Zinzer, A., and Murphy, A., effect of method of application and type of wood on durability of spar varnish, B., 68.
- Friese, W. See Silber, L. A.
- Friesen, S. von, precision measurements of the K-series for titanium and vanadium, A., 127.
- Frieser, H. See Luther, R.
- Friess, R., reactions of ammonia on the system $\text{ZnCl}_2\text{--NH}_4\text{Cl--H}_2\text{O}$, A., 1262.
- Friesz, J., and Mohos, E., blood-lactic acid in myasthenia, A., 1058.
- Frigidaire Corporation. See Andrews, F. W.
- Frink, R. L., manufacture of refractories, (P.), B., 327.
- Frisch, F., naphthalene-green V., A., 1430.
- Frisch, S., spark spectrum of neon (Ne II), A., 1328.
- Frisch, S., and Ferchmin, A., nuclear moment of sodium, A., 1488.
- Frischer, H., production of pure acids, (P.), B., 186.
- boiler for alkaline solutions, (P.), B., 282.
- production of [volatile inorganic] acids, (P.), B., 509*.
- Frischkorn, H., gas burners, (P.), B., 855.
- Fritz, C. W., sterilising wood blocks to be used in the culture of wood-inhabiting fungi, A., 1068.
- Fritz, E. H., tunnel kiln installation for porcelain insulators, B., 144.
- Fritz, F., dependence of drying power of linseed oil on origin of seed, B., 25.
- sub-iodine value of linseed oil, B., 567.
- removal of mucilage from linseed oil, B., 620.
- hexabromide determination on linseed oil, B., 620.
- Fritzman, E. K., nature of osmium tetroxide, A., 1391.
- Fritzsche, H. See Clayton Aniline Co., Ltd.
- Fritzweiler, and Dietrich, K. R., purification of absolute alcohol, B., 344.
- Frivold, O. E., conductivity of uni-univalent salts in cyclohexanol, A., 545.

- Frizell, *De R.*, and Richfield Oil Co. of California, [lubricant for] treatment of drill-stem joints, (P.), B., 1014.
- Frobisher, *M.*, *jun.* See Gilbert, *I.*
- Fröhlich, *H.*, inflammation. V. Alteration of the reaction of blood and carbon dioxide-combining capacity of the plasma of rabbits under the influence of drugs inhibiting respiration and inflammation, A., 1214.
- Fröhlich, *J.* See Soc. of Chem. Ind. in Basle.
- Fröhlich, *K. W.* See Danneel, *H.*, and Leroux, *J. A. A.*
- Fröehlich, *W.*, solubility of salts in water and in lyes at temperatures below and above 100°, B., 507.
- Fröehlich, *W.*, and Ritter, *E.*, treatment of sylvite above 100°, B., 507.
- Frsland, *P. E.*, [electric] furnace for producing aluminium, (P.), B., 1076.
- Fröschl, *N.*, Zellner, *J.*, and Zak, *H.*, sugar group. I. Derivatives of laevulose and lactose, A., 583.
- Fröschl, *N.*, Zellner, *J.*, and Zikmunda, *E.*, plant chemistry. XXII. Chemistry of barks. VII., A., 1627.
- Frohberg, *W.*, mobility of ions in ion-rays, A., 835.
- Frolich, *P. K.*, Carpenter, *G. B.*, and Knox, *W. J.*, *jun.*, vapour-phase esterification of acetic acid by ethyl alcohol, A., 698.
- Frolich, *P. K.*, and Cryder, *D. S.*, catalysts for formation of alcohols from carbon monoxide and hydrogen. VI. Investigation of mechanism of formation of alcohols higher than methyl alcohol, A., 1553.
- Frolich, *P. K.*, Simard, *R.*, and White, *Abraham*, formation of butadiene by cracking of hydrocarbons, B., 547.
- Frolich, *P. K.*, and White, *Abraham*, adsorption of methane and hydrogen on charcoal at high pressure, A., 1513.
- Frolich, *P. K.*, White, *Abraham*, and Dayton, *H. P.*, production of acetylene from methane. I. Cracking under vacuum, B., 173.
- Frolich, *P. K.*, White, *Abraham*, Uhrmacher, *R. R.*, and Tufts, *L. T.*, production of acetylene from methane. II. Cracking in the electric arc, B., 173.
- Frolich, *P. K.* See also Copson, *R. L.*, and Fenske, *M. R.*
- From, *V. C.*, Rowley, *C. D.*, and Larsky, *A. W.*, refrigerating apparatus for foodstuffs, etc., (P.), B., 1003.
- Fromageot, *C.*, degradation of carbohydrate by *B. coli*; isolation of methylglyoxal, A., 376.
- action of ultra-violet light on α -keto- β -methylbutyric acid, A., 1163.
- Fromageot, *C.*, and Perraud, *S.*, tautomeric forms of dimethylpyruvic acid, A., 1272.
- Fromageot, *C.*, and Watremez, *M.*, comparison of the buffering powers of glycine and glycylglycine, A., 1120.
- Fromandi, *G.*, adsorption-chemical studies on rubber fillers and rubber mixings. I., B., 625.
- viscosity of rubber solutions under the influence of benzoyl peroxide, B., 918.
- Fromherz, *H.*, and Menschick, *W.*, absorption of light by alkali halides in aqueous solution, A., 853.
- Fromherz, *H.* See also Diamond, *H.*
- Fromherz, *K.* See Demole, *V.*
- Fromm, *E.*, Fantl, *P.*, and Fisch, *J.*, guanidoethyl alcohol, A., 328.
- Fromm, *F.* See Thannhauser, *S. J.*, and Furth, *O.*
- Frommer, *L.*, and Polanyi, *M.*, gas space luminescence in a heterogeneous reaction, A., 520.
- Fron, *G.* See Lyon, *R.*
- Frost, *A. V.*, determination of chlorine in bromides, A., 1541.
- Frost, *A. V.*, and Frost, *O.*, product of the radioactive disintegration of potassium, A., 130.
- Frost, *A. V.* See also Ipatiev, *V. N.*
- Frost, *M. M.*, production of fibre articles, (P.), B., 137.
- Frost, *O.* See Frost, *A. V.*
- Frost, *R. J.*, electrolytic production of white lead, (P.), B., 1164.
- Frowein, *F.* See Wolff & Co.
- Frozen Food Products, Ltd., and Penfold, *A. H.*, preserving vegetables, (P.), B., 81.
- Frumkin, *A.*, adsorption of electrolytes by activated carbon, A., 683.
- Frumkin, *A.*, and Cirves, *F. J.*, electrocapillary properties of amalgams, A., 296.
- Frumkin, *A.* See also Bruns, *B.*, and Burstein, *R.*
- Fry, *A.*, and Krupp Akt.-Ges., *F.*, steel alloy, (P.), B., 20*.
- Fry, *A.*, and Nitrallay Corporation, hardening metal articles by nitrogenisation, (P.), B., 245*.
- Fry, *E. G.*, Light, *A. B.*, Torrance, *E. G.*, and Wolff, *W. A.*, opium addiction. X. Excretion of morphine by human addicts, A., 247.
- Fry, *H. S.*, and Bowman, *P. E.*, effect of organic bases on the extent and mechanism of the reducing action of sodium methoxide on nitrobenzene and azoxybenzene, A., 765.
- Fry, *W. H.* See Hendricks, *S. B.*
- Fu, *Y.* See Bartell, *F. E.*
- Fuchs, *F.*, preparation of waterproof materials such as tissues, yarns, etc., (P.), B., 321.
- Fuchs, *H. J.*, proteolytic enzymes in serum. XII. Significance of the complement in blood coagulation. IV., A., 102.
- modifications in Mendel and Goldscheider's colorimetric determination of lactic acid, A., 386.
- apparatus for micro-determination of blood-sugar, A., 631.
- micro-distillation apparatus and methods for the determination of organic nitrogen, carbamide, acetone, and lactic acid [in blood], A., 943.
- methods in blood-coagulation experiments; isolation of antiprothrombin from blood and tissues, A., 1202.
- Fuchs, *H. J.*, and Hartmann, *E.*, proteolytic enzymes in serum. X. Significance of the complement in blood coagulation. II., A., 102.
- Fuchs, *I. P.*, systematic indirect analysis. I., A., 441.
- Fuchs, *J.*, poisonous action of grain meal on yeast, B., 635.
- Fuchs, *K.*, and Gross, *P.*, action of alkali metals and organic alkali compounds on aromatic sulphoxides, A., 900.
- Fuchs, *K.*, and Katscher, *E.*, production of sulphuric acid and halogen derivatives of formaldehyde, (P.), B., 360.
- Fuchs, *K.*, Ruziczka, *W.*, and Kohn, *E.*, iodometry of food products. I., B., 790.
- Fuchs, *N.*, kinetics of hydration of meta- and pyro-phosphoric acids, A., 38.
- Antonov's rule and molecular orientation, A., 1366.
- Fuchs, *O.*, temperature and pressure variations of the dielectric constant of some organic vapours, A., 1238.
- Fuchs, *O.*, and Holzverkohlungs-Ind. A.-G., production of activated carbon, (P.), B., 1011.
- Fuchs, *O.* See also Fresenius, *L.*
- Fuchs, *P.*, rôle of silica in the decomposition of fluorides, A., 725.
- laboratory siphons, A., 884.
- evaporation of large quantities of solution in the laboratory, A., 1549.
- Fuchs, *W.*, coal as a material for organic chemical research, B., 42.
- origin of coal according to the present position of chemical investigation, B., 540.
- chemical examination of lignite, B., 800.
- analytical characteristics of coals, B., 973.
- chemical investigation of anaerobically decomposed wood, B., 984.
- Fuchs, *W.*, and Horn, *O.*, salts and esters of humic acids, A., 1408.
- Fuchs, *W.*, and Stengel, *W.*, degradation of humic acids to benzenecarboxylic acids and nitrophenols, A., 601.
- Fucke, *H.* See Klinger, *P.*
- Fuda, *S.* See Ichikawa, *S.*
- Füchtbauer, *C.*, and Wolff, *H. W.*, intensity relationships in the principal series of caesium, A., 3.
- Fühner, *H.*, detoxication of chloroform, A., 639.
- Fuel Efficiency Engineering Corporation, pulverisers of the impact type, (P.), B., 169.
- Fuentes, *B. V.*, Duomarco, *J.*, and Munilla, *A.*, distribution of total non-protein-nitrogen in experimental uræmia, A., 1470.
- Fuentes, *B. V.*, Recarte, *P.*, and Esculies, *J.*, modifications of the acid-base equilibrium and of ionised calcium in the blood in tuberculousis, A., 1469.
- Fuerst, *A. F.*, determination of alcohol by pyknometer, B., 390.
- Fürst, *K.* See Lustig, *B.*
- Fürth, *O.*, and Kaunitz, *H.*, oxidation of some constituents of the body by activated charcoal, A., 811.
- Fürth, *O.*, and Kuh, *E.*, absorption of the ethyl ester of 6-methylphenylcinchoninic acid (tolysin) and its fate in metabolism. I. Absorption of tolysin from the intestinal tract. II. Fate of tolysin in metabolism and its toxicity, A., 497.
- Fürth, *O.*, and Scholl, *R.*, influence of salts of bile acids on the processes of diffusion and absorption, A., 1212.
- Fürth, *O.*, and Singer, *K.*, determination of small quantities of urobilinogen and urobilin in faeces, A., 1467.

- Fürth, R., quantum theoretical calculation of the masses of the proton and electron, A., 128*.
determination of viscosity of very small quantities of liquid with the aid of the Brownian movement, A., 404.
- Fuess, J. T. See Gray, H. *Le B.*
- Fugmann, G., colouring of stone artificially, (P.), B., 375.
- Fuhrmann, O. See Dittmar, R.
- Fujii, K., arrangement of microcrystals in a fractured single-crystal aluminium wire, A., 671.
- Fujimura, K., extraction of Miike coal [with tetralin and phenol], B., 889.
- Fujio, C., decomposition of methane, ethane, and ethylene by an electric arc, A., 1399.
- Fujioka, Y., intensities in He_2 bands as affected by uncoupling of the orbital impulse of the electrons, A., 1226.
- Fujioka, Y. See also Kronig, R. *de L.*
- Fujisaki, K. See Matsumura, S.
- Fujisawa, K. See Tanaka, Y.
- Fujise, S. See Bergmann, E.
- Fujita, A., and Okamoto, K., manometric determination of blood-sugar, A., 1607.
- Fujita, N. See Takamine, J.
- Fujiwara, T., the crystal of tungsten obtained by deposition, A., 670.
arrangement of microcrystals in bent wires of tungsten and molybdenum, A., 671.
spectral lines obtained by the method of convergent X-rays, A., 1240.
- Fukami, Y., arrangement of the microcrystals in compressed single-crystal plates of aluminium. I. and II., A., 139.
- Fukuda, D. See Toyabe, Y.
- Fukuda, M., alkaloids of *Fritillaria verticillata*, Willd., var. *Thunbergii*, Baker. I., A., 227.
- Fukuda, T., change of fat content of blood of animals fed with vitamin-poor food, A., 647.
- Fukuda, Y. See Oshima, Y.
- Fukui, M., and Miyaguchi, T., manufacture of face paint or cosmetic, (P.), B., 122.
- Fukunaga, K. See Toyabe, Y.
- Fukushima, I., and Takamatsu, Y., action of caustic soda on cellulose, B., 96.
- Fukushima, M. See Ishida, Y.
- Fuller, G. J. A. See Fuller, L.
- Fuller, J. E. See Bradley, L. A.
- Fuller, L., and Fuller, G. J. A., [block-type] galvanic batteries, (P.), B., 108.
[inert-type] galvanic batteries, (P.), B., 724.
- Fuller, M. L., crystal structure of wurtzite, A., 20.
- Fuller, M. L. See also Davey, W. P.
- Fuller, T. S. See Brit. Thomson-Houston Co., Ltd., and Gen. Electric Co.
- Fuller-Lehigh Co., pulverised-fuel burners, (P.), B., 1015.
furnaces and methods of operating the same, (P.), B., 1095.
heat-conducting cement compositions, (P.), B., 1112.
- Fuller-Lehigh Co. See also Groman, R. O., Hardgrove, R. M., and Kerr, H. J.
- Fullerton, R. G. See Eaton, B. J.
- Fulmek, L., toxicity of common arsenicals, B., 116.
- Fulmer, H. K. See Friedman, H. B.
- Fulmer, J. M. See Ekeley, J. B.
- Fulton, B. B., relation of evaporation to killing efficiency of soap solutions on the harlequin bug and other insects, B., 962.
- Fulton, C. C., aldehyde-oxidation reactions for phenols, particularly the opium alkaloids, B., 166.
- Fulton, R. A., and Lee, W. B., anomalous fifth carbon atom in *n*-fatty nitriles, A., 899.
- Fulton, R. R., and Koppers Co., obtaining alkaline-earth thiocyanates [from gas-purification liquors, etc.], (P.), B., 711.
- Fulton, R. R. See also Westinghouse Electric & Manuf. Co.
- Fulton, S. M. See Palmer, C. W.
- Fulton Syphon Co. See Lawhon, C. D.
- Funk, C., oestrus-producing hormone, A., 254.
isolation of certain physiologically active substances, (P.), B., 967.
- Funk, C., and Harrow, B., male hormone, A., 254.
- Funk, E. H., and St. Clair, H., haemochromatosis: copper content of the liver, A., 366.
- Funk, H., ionisation of alkali atoms by slow electrons, A., 268.
- Funk, H., and Weinzierl, J., quantitative separation of lead and bismuth, A., 1545.
- Funk, H. See also Manchot, W.
- Funke, G. See Hägg, G.
- Furia, M. See Berlingozzi, S.
- Furman, N. H., potentiometric titrations, A., 1142.
- Furman, N. H., and Wallace, J. H., *jun.*, ceric sulphate in volumetric analysis. VII. Oxidation of quinol by ceric sulphate, A., 727.
ceric sulphate in volumetric analysis. VIII. Use of methyl-red, erio-glaucon, and erio-green indicators in the reaction between ceric and ferrous ions, A., 1012.
- Furnas, C. C., heat transfer from a gas stream to a bed of broken solids, B., 221.
- Furnas, C. C., and Joseph, T. L., stock distribution and gas-solid contact in the blast furnace, B., 1068.
- Furon, R., occurrence of copper in French Western Soudan, A., 448.
- Furth, O., and Fromm, F., protein degradation. I. Formation of nitrogen from protein by the action of sodium hypobromite and its relationship to the arginine content, A., 939.
- Fuseya, G., and Murata, K., formation of complex cations of metal ions with glycine, A., 1371.
- Fuseya, G., Murata, K., and Yumoto, R., addition agents in electrodeposition. III. Application of the complex cation theory to baser metals, B., 563.
- Fuseya, G., Sasaki, K., and Nagano, M., viscosities of dilute solutions of ash-free gelatin, A., 1369.
- Fusion Welding Corporation. See Holt, R. W.
- Fuson, R. C., and Connor, R. A., pyrrolidine derivatives from ethyl $\alpha\alpha$ -dibromoadipate and secondary amines, A., 1296.
- Fuson, R. C., Kreimeier, O. R., and Nimmo, G. L., ring closures in the cyclobutane series. II. Cyclisation of $\alpha\alpha$ -dibromoadipic esters, A., 1580.
- Fuson, R. C., and Walker, J. T., cleavage of carbonyl compounds by alkalis. I. Trihalogenomethyl ketones of the mesitylene series, A., 1291.
- Fusssteig, R., removal of coke from Boryslaw asphalt, B., 934.
- Futacchi, D., manufacture of organic products; [oxidation by air or oxygen at high pressures], (P.), B., 1016.
- Futagami, T. See Nagaoka, H.
- Fyre-Freeze Corporation, fire-extinguishing systems, (P.), B., 1098.

G.

- Gaal, B., phytochemistry of centaury, B., 1003.
- Gaarder, T., fixation of phosphoric acid in soils, B., 833.
- Gaarder, T., and Hagem, O., nitrification in uncultivated soils. I. Various analyses. II. Nitrification as affected by hydrogen-ion concentration, B., 920.
- Gabbe, E., glutathione content of organs, especially of muscle, A., 1307.
- Gabel, J. O., and Schmuklovskaya, L. G., methyl alcohol content in tobacco. II., B., 301.
- Gabel, L. F., effect of heat on acacia, B., 1003.
- Gable, H. S., metallic precipitation of zirconium, A., 1388.
- Gabriel, A., and Cox, E. P., staining method for the determination of rocks, A., 734.
- Gabriel, L. G. See Colas Products, Ltd.
- Gadaskin, I. D. See Tschernikov.
- Gaddum, J. H., thyroxine and allied substances. II. Effects on the oxygen consumption of rats, A., 504.
stability of aqueous solutions of the oxytocic principle of the pituitary gland, A., 1319.
- Gaddum, J. H. See also Bourdillon, R. B.
- Gaddy, V. L. See Krase, H. J.
- Gäbler, K. See Foerster, F.
- Gaebler, O. H. See Breh, F.
- Gaede, J. See Windaus, A.
- Gaertner, O., ionisation of halogens (except fluorine) and their methyl compounds by means of X-rays, A., 5.
- Gärtner & Aurich, souring of sap-containing vegetable matter in silos in preparation of a preserved feeding-stuff, (P.), B., 585.
- Gaessler, E. O., rôle of the liver reticuloendothelium in the resynthesis of lactic acid, A., 1470.
- Gaffney, J. B. See Hanson, I. E.
- Gagarina, E. D., variations in catalase and anticatalase of human blood under physiological conditions, A., 1006.
- Gagman, E., atomisers, (P.), B., 171.

- Gagman, *E.*, atomisers [for perfumes, etc.], (P.), B., 540.
- Gagnon, *P.*, 3:3-diphenyl-1-hydrindone and its derivatives; synthesis of 1:1-diphenyl-indeno and -hyrindene, A., 90.
- Gahler, *F. J.*, preparation of artificial silk threads and fabrics, (P.), B., 11.
- Gahn, *G. S.* See Volschinski, *V. A.*
- Gaier, *J.* See Curtius, *T.*
- Gaillissen, *J.*, and Union Chimique Belge Société Anonyme, manufacture of insecticides, etc., (P.), B., 1006.
- Gaines, *J. M., jun.* See Herty, *C. H., jun.*
- Gainey, *P. L.*, Sewell, *M. C.*, and Latshaw, *W. L.*, nitrogen balance in cultivated semi-arid Western Kansas soils, B., 474.
- Gainey, *P. L.* See also Sewell, *M. C.*
- Gál, *G.*, derangement of resorption due to lack of vitamin-B, A., 1625.
- Galamini, *A.*, food value of the potato for albino rats, A., 108.
- Galan, *G.*, pulverising mill, (P.), B., 1050.
- Gale, *R. C.*, simple dilatometer, A., 731.
apparatus for demonstrating the "arrest points" of 0.9% carbon steel, B., 866.
- Gale, *W. A.*, Ritchie, *C. F.*, and American Potash & Chemical Corporation, refining of borates, (P.), B., 143.
- Gale, *W. A.* See also Ritchie, *C. F.*
- Galecki, *A.*, and Tomaszewski, *J.*, composition of deposit forming on zinc immersed in cupric sulphate solution. I., B., 822.
- Galehr, *O.* See Plattner, *F.*
- Galena-Signal Oil Co. See Heisig, *T. C.*
- Galet, *G.* See Balasse, *G.*
- Galet, *P.* See Mondain-Monval, *P.*
- Galibourg, *J.*, ageing of cold-worked metals, B., 196.
- Galibourg, *J.* See also Guillet, *L.*
- Galimberti, *P.* See Crippa, *G. B.*
- Gall, *H.*, and Schüppen, *J.*, valency limit with phosphorus cyanides and thiocyanates, A., 461.
- Gallagher, *T. F.*, and Koch, *F. C.*, testicular hormone, A., 118.
- Gallas, *G.*, and Alonso, *A.*, syntheses with metal carbonyls, A., 80.
condensations of [aromatic] halogeno-nitro-compounds. I., A., 1571.
bromo-derivatives of polyphenols, A., 1575.
- Gallaugh, *A. F.* See Seyer, *W. F.*
- Gallay, *W.*, and Whitby, *G. S.*, catalysts in the preparation of *o*-benzoylbenzoic acid and ethylbenzenes by the Friedel and Crafts reaction, A., 773.
- Gallimore, *E. J.* See Dodds, *E. C.*
- Gallitelli, *P.* See Seemann, *H.*
- Galloway, *A. E.* See Brown, *R. L.*
- Galloway, *L. D.* See Brit. Cotton Industry Res. Assoc., and Faragher, *R. G.*
- Galopin, *R.* See Duparc, *L.*
- Galusha, *A. L.*, grates more especially for gas producers, (P.), B., 704.
- Galvialo, *M. J.*, and Kreines, *C. J.*, distribution of nitrogen, phosphorus, iron, and sulphur in the myosin and myostromin of heart-muscle, A., 1203.
- Galvialo, *M. J.* See also Vladimirov, *G. E.*
- Galvin, *A. F.*, preparations for stiffening and sizing textile yarns and fabrics, (P.), B., 458.
- Gamble, *D. L.*, and Pfund, *A. H.*, experimental determination of brightness-film thickness curves of wet paints, B., 383.
- Gamble, *W. G., jun.*, [apparatus for] blood chemistry determinations, A., 1200.
- Game, *S. F.* See Goulding, *F. A.*
- Gamow, *G.*, structure of atomic nucleus, A., 9.
mass defect curve and nuclear constitution, A., 518.
fine structure of α -rays, A., 1339.
- Gamow, *G.* See also Chadwick, *J.*
- Ganassini, *D.*, urinary uric acid, A., 105.
determination of dextrose in urine, A., 492.
colour reaction of glycerol with alkali thiosulphates, A., 1018.
specific detection of human blood by Ganassini's reaction, A., 1461.
- Gandrud, *B. W.*, and De Vaney, *F. D.*, bauxite; float-and-sink fractionations and flotation experiments, B., 860.
- Ganguli, *A.*, adsorption of gases by solids, A., 407.
Sexl's adsorption theory, A., 1363.
- Ganguli, *A.* See also Kar, *K. C.*
- Ganguli, *P. N.* See Goswami, *M. N.*
- Ganguly, *P. B.* See Lal, *P.*, and Ray, *R. C.*
- Ganguly, *S. C.* See Mukherjee, *J. N.*
- Gann, *J. A.*, and Dow Chemical Co., treatment of shavings and scrap of light metal [magnesium] and alloys thereof, (P.), B., 332.
purifying light-metal [magnesium] alloys, (P.), B., 914.
light-metal [magnesium] alloy, (P.), B., 953.
- Ganossis, *B.*, permeability of soils, B., 161.
effect of fertilisation on the permeability of soil, B., 961.
- Gans, *D. M.*, and Harkins, *W. D.*, drop-weight method for determination of surface tension; effect of inclination of the tip on the drop weight, A., 991.
surface tension of aqueous solutions of *p*-toluidine, A., 991.
- Gans, *D. M.* See also Harkins, *W. D.*
- Gans, *R.*, diamagnetism of ferromagnetic substances, A., 673.
- Gans, *R.*, Krug, *C.*, and Heuseler, *E.*, determination of platinum in rocks, A., 445.
- Ganssen, *R.*, soil acidity and absorption, B., 253.
weathering complex of soil, B., 960.
- Gapon, *E. N.*, kinetics of certain simultaneous processes, A., 299.
theory of supersaturated salt solutions, A., 407.
induction period in the crystallisation of supersaturated solutions, A., 407.
hydration of ions and molecules, A., 549.
kinetics of crystallisation of supersaturated solutions, A., 549.
complex compounds of cobalt with $\alpha\beta$ -diphenylethylenediamine, A., 765.
solubility, the transport coefficient, and velocity of dissolution, A., 850.
relation between the surface energy of heteropolar substances and their solubility, A., 850.
velocity of crystallisation. II., A., 866.
syneresis, A., 1117.
- Garb, *B.*, and Hasko, *M.*, coefficient of conductivity of strong electrolytes in aqueous solution, A., 704.
- Garbade, *F. A.* See Dawson, *W. T.*
- Garchey, (*Mme.*) *B.* See Garchey, *L. A.*
- Garchey, *L. A.*, and Garchey, (*Mme.*) *B.*, freezing mixtures, (P.), B., 539.
- Garcia, *R. F.*, effect of fertilisers on the quality of the juices of sugar cane, B., 784.
- Garcia-Viana, *J.*, and Tomeo, *M.*, Spanish rubbers, B., 872.
- Garcia-Viana, *J.* See also Tomeo, *M.*
- Gard, *E. W.*, Aldridge, *B. G.*, and Multer, *H. J.*, treatment of oil, (P.), B., 273.
dehydration of oil, (P.), B., 273.
- Gard, *E. W.*, Aldridge, *B. G.*, Multer, *H. J.*, and Howes, *R. T.*, refining of hydrocarbon oils, (P.), B., 1140.
- Gard, *J. F. S.*, and Robinson, *R. S.*, insulation of heated and cooled surfaces, B., 589.
- Gard, *S.* See Euler, *H. von.*
- Gardner, *C. G.* See Skinner, *C. E.*
- Gardner, *D.*, fuels [for internal-combustion engines, etc.], (P.), B., 90.
manufacture of high-purity carbon, (P.), B., 1141*.
- Gardner, *D.*, and Taverner, *L.*, extraction of iron and titanium compounds from titanium ores, (P.), B., 239*.
- Gardner, *F. E.*, composition and growth initiation of dormant Bartlett pear shoots as influenced by temperature, A., 648.
- Gardner, *F. T.* See Rhodes, *F. H.*
- Gardner, *J. A.* See Kashio, *Y.*
- Gardner, *H. A.*, durability of exterior paints on wood surfaces, B., 468.
quick polymerisation and oxidation effects on oils, B., 517.
Canadian pitchard oil, B., 621.
wood rosin in antifouling paints, B., 621.
[exposures of] quick-drying house paints, B., 622.
crystallising lacquers, B., 623.
aircraft finishes, B., 779.
laminated glass, (P.), B., 906.
manufacture of acetylcellulose, (P.), B., 1146.
- Gardner, *H. A.*, and Hart, *L. P.*, testing wood primers, B., 917.
- Gardner, *H. A.*, and Sward, *G. G.*, accelerated testing equipment [for paints, etc.], B., 622.
- Gardner, *H. A.*, Sward, *G. G.*, and Levy, *S. A.*, hiding power and tinting strength of pigments and paints, B., 569.
practical brush-out test for hiding power of paints, B., 779.
- Gardner, *H. A.* See also Heuckeroth, *A. W. van*, and Sward, *G. G.*
- Gardner, *H. C.*, granulated product and its manufacture [from arsenical fume], (P.), B., 994.
- Gardner, *J. H.*, and Borgstrom, *P.*, method of coupling organic radicals by the Grignard reagent, A., 76.

- Gardner, J. H., and Kerone, E. B. W., continuous extractor for solids, A., 730.
- Gardner, R. H., Hodge, H. G., and Sinclair Refining Co., refining of hydrocarbon oils, (P.), B., 313.
- Gardner, W. See Smith, W. S.
- Gardner, W. J., drying of refractory materials, (P.), B., 768.
- Gargill, S. L., Gilligan, D. R., and Blumgart, H. L., metabolism and treatment of osteomalacia; its relation to rickets, A., 1059.
- Garino, M., and Benvenuto, G., decolorising carbons and their action on molasses, B., 211*.
- Garland, C. E. See Lilly, V. G.
- Garland, J., [heat-insulating material for covering chill rooms, pipes, etc., and its method of application, (P.), B., 1096.
- Garnak, A. S., experimental production of ammonium molybdate, B., 417.
- Garner, E., and Carborundum Co., Ltd., forming abrasive [surfaces on] articles [by spraying], (P.), B., 768.
- Garner, F. H., heavy distillates, fuel oils, asphalts, and residues, B., 698.
- Garner, J. H., and Wishart, J. M., purification of waste waters from sugar-beet factories, B., 642.
- Garner, J. R., and Royston, J. H., annealing furnace, (P.), B., 514.
- Garner, W. E., detonation of solid explosives, A., 1379.
- Garner, W. E., and Hall, D. A., catalytic action of hydrogen on the carbon monoxide flame, A., 1379.
- Garner, W. E., and Kingman, F. E. T., adsorption of hydrogen and carbon monoxide on oxide catalysts, A., 1363.
- Garner, W. E., and Tanner, M. G., dehydration of copper sulphate pentahydrate, A., 428.
- Garner, W. E., and Tawada, K., radiation from the hydrogen-oxygen flame, A., 263.
- Garner, W. E. See also Cosslett, V. E., and Fenton, (Miss) T. M.
- Garner, W. W., McMurtrey, J. E., jun., Bowling, J. D., jun., and Moss, E. G., rôle of chlorine in nutrition and growth of the tobacco plant and its effect on the quality of the cured leaf, A., 823.
- magnesium and calcium requirements of the tobacco crop, B., 435.
- Garnett, C. S., composition and manufacture of refractory basic brick, etc., (P.), B., 420*.
- Garnett, H. J. See Smith, W. S.
- Garnier, M., determination of manganese in plant ash, A., 120.
- Garrard, E. H. See Jones, D. H.
- Garre, B., and Müller, A., recrystallisation of lead, A., 846.
- Garrick, F. J., co-ordination. I. Ion hydrates, A., 276, 1096.
- co-ordination. II. Ion ammoniates, A., 1096.
- Garrigue, H., passage of continuous current in acetone, A., 1126.
- Garrigue & Co., W. See Sieck, W., jun.
- Garrison, E. A. See Morgan, A. F.
- Garrison, E. R. See Reed, W. H. E.
- Garrow, F. C. See Campbell, A. N.
- Garry, G., and Puffeles, M., excretion of oxalic acid in pathological conditions, A., 1470.
- Gartenmann, C., and Ringold, K., (Gartenmann & Cie, C.), production of flooring and paving, (P.), B., 559.
- Gartenmann & Cie, C. See Gartenmann, C.
- Garton, C. G. See Brit. Thomson-Houston Co., Ltd.
- Gas Accumulator Co. (United Kingdom), Ltd., and Svenska Aktiebolaget, [ebonite] valves for oxygen containers or bottles, (P.), B., 1110.
- Gas Light & Coke Co., Adam, W. G., Shannan, W. V., and Cuckney, M., catalytic oxidation of (A) toluene, (B) organic compounds, particularly toluene and similar hydrocarbons [anthracene, naphthalene, benzene], (P.), B., 940.
- Gas Light & Coke Co., Clark, J. C., and Masterman, C. A., gas and/or oil heating appliances, (P.), B., 938.
- Gas Light & Coke Co., Hollings, H., Pexton, S., and Hutchinson, W. K., recovery of ammonia from coal gas and similar industrial gases containing ammonia, (P.), B., 1140.
- Gas Light & Coke Co. See also Adam, W. G., and Masterman, C. A.
- Gas- & Teer Ges.m.b.H., continuous generation of water-gas [from powdered fuel], (P.), B., 92.
- production of water-gas, (P.), B., 230.
- Gaschler, A., introduction of hydrogen into the gold atom and similar experiments, A., 720.
- production of oxides of nitrogen from the air, (P.), B., 58.
- Gaskill, E. C., and St. Joseph Lead Co., zinc oxide manufacture, (P.), B., 1028.
- Gasoline Corporation. See Greenstreet, C. J.
- Gáspár, A. See Bencsik, F.
- Gassan, A., and Ruck, P., processes and casting moulds for manufacturing zinc containers for galvanic elements, batteries, etc., (P.), B., 825.
- Gassberger, G., heating elements for brewing-vats, (P.), B., 261.
- Gassmann, T., composition of bone skeletal substance, A., 237.
- occurrence of a new phosphorus compound in lecithin, A., 945.
- artificial synthesis of bones and teeth. I. Preparation of glycine hexol salt and glycine phosphatocalcium carbonate, A., 1609.
- Gassul, R., and Poljakov, A., effect of X-rays on proteolytic processes, A., 817.
- Gast, W., open-hearth furnace, (P.), B., 969.
- Gastaldi, C., and Princivale, E., pyrazines. IV., and V., A., 223, 929.
- Gaster, A. See Boëseken, J.
- Gasverarbeitungsges. m.b.H., production of [pure] hydrogen [from methane or gases containing it], (P.), B., 325.
- heating of gases [for ammonia synthesis], (P.), B., 816.
- Gat, E. P. M., and Carrière, E. M. L., electroplating on aluminium and its alloys, (P.), B., 290.
- Gater, W., degumming of ramie and similar fibres, (P.), B., 318.
- Gates, F. L., bactericidal action of ultra-violet light. I. Reaction to monochromatic radiations. II. Effect of various environmental factors and conditions, A., 116.
- bactericidal action of ultra-violet light. III. Absorption of ultra-violet light by bacteria, A., 1479.
- method of titrating proteolytic enzymes, A., 1620.
- Gates, W. R. B. S., Tavroges, J., and Cow & Gate, Ltd., dry milk products, (P.), B., 927.
- preventing rancidity in dried or powdered milk and milk foods or preparations, (P.), B., 927.
- Gattefossé, M., and Société Française de Produits Aromatiques (Anciens Établissements Gattefossé), regeneration of rubber, (P.), B., 432.
- Gatti, D. See Mascarelli, L.
- Gaubatz, E. See Kautsky, H.
- Gaubert, P., dehydration of heulandite, A., 718.
- influence of foreign matter in suspension in the mother-liquor on the habit of crystals, A., 982.
- heulandite, A., 1017.
- Gaubert, P. See also Nicolardot, P.
- Gaudefroy, C., polymorphism of cyclohexane-1:4-diol, A., 985.
- Gauld, J. A. See Beadle, C. R. G.
- Gaunt, J. A., radiation of free electrons in a coulomb field, A., 269.
- continuous absorption, A., 518.
- Gaus, W. See I. G. Farhenind, A.-G.
- Gauthier, E. A. See Bernardini, F.
- Gautrelet, J. See Bennati, D.
- Gavalovski, V. A., and Sacharov, L. S., manufacture of pinene hydrochloride and synthetic camphor, (P.), B., 440.
- Gaviola, E., life and concentration of metastable atoms and the quenching of mercury resonance radiation, A., 125.
- concentration of metastable mercury atoms, A., 970.
- molecular mechanism of some photosensitized reactions; energy of dissociation of water, A., 1004.
- transition probability of "forbidden line" 2656 Å. of mercury, A., 1490.
- Gavrila, I., and Moga, A., bile-protein in diabetes, A., 365.
- Gavrilov, A. See Andrejev, P.
- Gavrilov, N. J., and Botvinik, M. M., anhydride complex from edestin containing hexone bases, A., 100.
- Gavrilovitch, V. A. See Development of Industries, Ltd.
- Gawthrop, D. B. See Perrott, G. St. J.
- Gay, E., production of photographic images, (P.), B., 441*.
- Gay, F. W., heat-transfer means, (P.), B., 2.
- Gayda, T., effect of insulin on the amylolytic activity of saliva and blood, A., 379.
- Gayler, (Miss) M. L. V., high-temperature allotropes of manganese, B., 62.
- relation between macro- and micro-structure in some non-ferrous alloys, B., 1032.
- Gayler, (Miss) M. L. V. See also Jenkins, C. H. M.
- Gayley, C. T. See Westinghouse Electric & Manuf. Co.
- Gazenko, G., determination of volatile substances, A., 386.
- Geagley, W. C., iodised salt, B., 56.
- Geake, A. See Birtwell, C.
- Gebauer, R., and Trautenberg, H. R. von, third order Stark effect for the hydrogen series lines H γ and H δ , A., 969.

- Gebauer, R. See also Traubenberg, H. R. von.
- Gebauer-Fülneegg, E., Pauly diazo-reaction, A., 1605.
- Gebauer-Fülneegg, E., and Dingler, O., cellulose sulphuric esters, A., 1169.
- Gebauer-Fülneegg, E., and Jarsch, H., two isomeric *p*-benzoquinonedithioglycollic acids, A., 1039.
- Gebauer-Fülneegg, E., and Riesz, E., oxidation of arylthiolarylides. III., A., 209.
- Gebhart, H. See Fischer, Hans.
- Geddes, W. F., chemical and physico-chemical changes induced in wheat and wheat products by elevated temperatures. I. and II., B., 262, 583.
- chemical and physico-chemical changes induced in wheat and wheat products by elevated temperatures. III. Influence of germ constituents on baking quality and their relation to improvement in flour induced by heat and chemical improvers, B., 583.
- Gee, F. W., treatment of waste food; grading and separating apparatus [for waste food, etc.], (P.), B., 347.
- Geer, W. C., and Goodrich Co., B. F., adhesive material [from rubber], (P.), B., 627.
- manufacture of [rubberised] paint, (P.), B., 997.
- Geffcken, H., and Richter, H., photo-electric cell, (P.), B., 336.
- Gehrig, W. F., [intermittent] detonating firework composition, (P.), B., 84.
- Gehring, A., determination of the reaction condition and lime requirement of soils, B., 256.
- fertilising effect of manures containing magnesium, B., 258.
- Neubauer tests for phosphoric acid [in soils] in the Brunswick area and confirmatory tests of the method, B., 474.
- manurial action of magnesium sulphate and its dependence on the limo condition of soils, B., 631.
- can the laboratory examination of a soil give sufficiently definite information as to its lime requirement? B., 832.
- Gehring, A., and Wehrmann, O., significance of the degree of saturation of soils with potash in evaluating their potash requirement, B., 257.
- Gehrke, A., determination of the oil content of palm kernels, B., 467.
- Geib, N. V. See Schreiber, W. T.
- Geiger, E., cellulose xanthate. I., A., 751.
- mobilisation of muscle-glycogen by adrenaline and its resynthesis from muscle-lactic acid in the liver, A., 1209.
- Lilienfeld silk (Nuera silk), B., 1145.
- Geiger, E., and Kropf, H., influence of food on blood-sugar regulation. II. (1) Potato feeding; (2) influence of calcium chloride solution and Carlsbad water on the sugar tolerance.
- III. Investigation with Carlsbad water and animals nourished on green food or potatoes, A., 360.
- Geiger, M. B. See Pierce, J. S.
- Geigle, W. F. See Briggs, T. R.
- Geigy Aktien-Gesellschaft, J. R., manufacture of acid dyes of the phenonaphthasafranin series, (P.), B., 364.
- manufacture of strongly basic azo-dyes, (P.), B., 366.
- solutions of azo-dyes in drying oils, (P.), B., 455.
- preparation of *o*-nitroso-[hydro]oxy-dyes and their heavy-metal compounds, (P.), B., 502.
- manufacture of vat dye preparations, (P.), B., 706.
- manufacture of dyes [of the azophthalein series], (P.), B., 1019.
- Geigy Aktien-Gesellschaft, J. R. See also Geigy Soc. Anon., J. R.
- Geigy Société Anonyme, J. R., production of conversion products of azo-dyes [for dyeing leather], (P.), B., 316.
- mordant disazo-dyes, (P.), B., 454.
- Geigy Société Anonyme, J. R. See also Bauder, E., and Laeuger, P.
- Geiling, E. M. K., and De Lawder, A. M., crystalline insulin. XI. Does insulin cause an initial hyperglycemia? A., 1320.
- Geill, T., precipitation reactions between salts of heavy metals and purified serum-proteins, A., 235.
- Geilmann, W., and Voigt, A., analytical chemistry of rhenium. I. Determination of soluble per-rhenates by means of nitron, A., 1547.
- Geisel, E. See Rhenania-Kunheim Ver. Chem. Fabr. A.-G.
- Geisel, K., and Aluminum Solder Corporation of America, composition for soldering metals, (P.), B., 773*.
- Geisinger, E. E., and Berlinghof, K., effect of furnace gases on glass enamels, B., 326.
- Geissen, C., drying, low-temperature carbonisation, distillation, or combustion of granulated or pulverulent fuels, (P.), B., 1012.
- Geissen, C. See also Kohlenveredlung A.-G.
- Gélatines Hasselt & Vilvorde, treatment of bones, (P.), B., 294.
- Gelbach, R. W., and Compton, K. G., titration of lead by means of a thermionic titrometer, A., 1545.
- Geller, L. W., and National Aniline & Chemical Co., Inc., monoazo-dyes of the pyrazolone series, (P.), B., 9.
- Geller, R., [medical] preparation of solid compounds, capable of being spread, containing iodine and potassium iodide, (P.), B., 686.
- Gelormini, O., and Artz, N. E., oxidation of inositol with nitric acid, A., 1035.
- Geloso, J. See Courtines, M., and Wurmser, R.
- Gelsenkirchener Bergwerks Akt.-Ges., Vervuert, G., and Rieber, G., treatment of complex ores, (P.), B., 106.
- Gelstein, E. M., and Frankstein, M. I., blood-lactic acid in pathological conditions, A., 1058.
- Gelstharp, F., and Pittsburgh Plate Glass Co., calcining apparatus, (P.), B., 885.
- Gem Appliances, Inc. See Gould, B.
- Gemmell, G. H., wood-pulp testing: a plea for standardisation, B., 758.
- Genairon, A., lime or cement mortar, (P.), B., 241.
- Genaud, P., exchange of ions between vegetable cells and salt solutions, A., 1482.
- Genders, R., macrostructure of cast alloys: effect of turbulence due to gases, B., 423.
- aluminium-brasses, B., 423.
- General Aniline Works, Inc., and Ballau, F., manufacture of [dihydroindole-indophenols, (P.), B., 1143*.
- General Aniline Works, Inc., Braun, J. von, and Bayer, O., catalytically reducing anthraquinone compounds and hydrogenated products derived therefrom, (P.), B., 410*, 604*.
- General Aniline Works, Inc., and Bucherer, H. T., manufacture of vat dyes, (P.), B., 278*.
- preparation of 2:3-benzocarbazole-1:4-quinones [vat dyes of the α -naphthaquinone series], (P.), B., 707*.
- General Aniline Works, Inc., and Clingstein, H., [manufacture of] azo-dyes, (P.), B., 317*.
- General Aniline Works, Inc., and Cotton, W., production of fast-coloured resists under aniline black, (P.), B., 763*.
- General Aniline Works, Inc., Duisberg, W., Hentrich, W., and Zeh, L., dyes which are alanines of the anthraquinone series and their derivatives, (P.), B., 411.
- production of monoazo-dyes from aminobenzyl- ω -sulphonic acid, (P.), B., 550*.
- General Aniline Works, Inc., Eckert, W., and Greune, H., preparation of [vat-dye] derivatives of 1:4:5:8-naphthalenetetracarboxylic acids, (P.), B., 757*.
- General Aniline Works, Inc., Eckert, W., and Kirst, W., azo-dyes and material dyed therewith, (P.), B., 606*.
- General Aniline Works, Inc., and Fellmer, E., trisazo-dyes, (P.), B., 52*.
- General Aniline Works, Inc., and Fischer, E., dyeing of cellulose esters or ethers, (P.), B., 554*.
- General Aniline Works, Inc., Fischer, F., and Müller, C. E., dyeing and printing cellulose esters and ethers, (P.), B., 763*, 944*.
- General Aniline Works, Inc., and Fischesser, A., discharging of dyed cellulose acetate materials, (P.), B., 987*.
- General Aniline Works, Inc., Francke, B., and Moehrke, H., preparation of water-soluble [chrome] dyes of the triaryl-methane series, (P.), B., 317*.
- General Aniline Works, Inc., and Greune, H., preparation of cyclic ketonic compounds, (P.), B., 652*.
- General Aniline Works, Inc., Grimm, H., and Clingstein, H., [production of] naphthacarbazolehydroxyazo-dyes, (P.), B., 757*.
- General Aniline Works, Inc., and Haller, J., manufacture of naphthisatin compounds, (P.), B., 502*.
- General Aniline Works, Inc., and Hayn, R., felting property of animal hair, (P.), B., 1106*.
- General Aniline Works, Inc., Henle, F., and Vossen, B., [production of] 6-chloro-2-amino-1-methylbenzene-4-sulphonic acid, (P.), B., 550*.
- preparation of 6-chloro-2-nitro-1-methylbenzene-4-sulphonic acid, (P.), B., 652*.
- manufacture of sulphonic acids of 6-chloro-2-amino-1-methylbenzene [6-chloro-*o*-toluidine], (P.), B., 941*.
- General Aniline Works, Inc., Hentrich, W., and Hardtmann, M., condensation products of the benzodiazine series, (P.), B., 604*.

- General Aniline Works, Inc., Hentrich, W., Hardtmann, M., and Knocke, R., condensation product of the benzodiazine [quinazoline] series, (P.), B., 1143*.
- General Aniline Works, Inc., Hentrich, W., Hardtmann, M., and Tietze, E., preparation of dyes on the fibre, (P.), B., 657*.
- General Aniline Works, Inc., Herz, R., and Albrecht, E., manufacture of vic-trihalogenobenzenes, (P.), B., 755*.
- General Aniline Works, Inc., Herz, R., Runne, E., and Albrecht, E., preparation of trihalogenbenzene sulphochloride, (P.), B., 706*.
- General Aniline Works, Inc., and Heyn, B., manufacture of derivatives of 2:3-hydroxynaphthoic acid, (P.), B., 856*.
- General Aniline Works, Inc., Heyn, H., Kirst, W., Kracker, H., and Moldaenke, K., manufacture of azo-dyes [ice colours and pigments], (P.), B., 606*.
- General Aniline Works, Inc., Hoffa, E., and Thoma, E., manufacture of azo-dyes, (P.), B., 503*.
- preparation of chlorine-substitution products of 4-nitro-1:3-dimethylbenzene [chlorinated 4-nitro-*m*-xylene], (P.), B., 706*.
- General Aniline Works, Inc., and Honold, E., manufacture of vat dyes, (P.), B., 234*.
- General Aniline Works, Inc., and Kämmerer, H., [manufacture of azo-] dyes containing chromium, (P.), B., 503*.
- General Aniline Works, Inc., Kämmerer, H., and Holzach, K., chromium compounds of azo-dyes, (P.), B., 1020*.
- General Aniline Works, Inc., Kalischer, G., and Keller, K., manufacture of halogen-substituted aromatic tertiary amines, (P.), B., 1060*.
- General Aniline Works, Inc., Kalischer, G., and Ritter, H., manufacture of sulphur dyes, (P.), B., 653*.
- General Aniline Works, Inc., Kalischer, G., and Scheyer, H., manufacture of condensation products of the benzanthrone series, (P.), B., 982*.
- General Aniline Works, Inc., Kalischer, G., Scheyer, H., and Keller, K., introduction of an aldehydic group into heterocyclic nitrogen compounds, (P.), B., 706*.
- General Aniline Works, Inc., Kalischer, G., Scheyer, H., Nawiasky, P., and Krauch, E., manufacture of condensation products of the benzanthrone series, (P.), B., 755*.
- General Aniline Works, Inc., Keller, F., and Schnitzspahn, K., [manufacture of] acid diazonium salts of arylsulphonic acids, (P.), B., 276*.
- diazosalt preparation, (P.), B., 604*.
- General Aniline Works, Inc., Kirchhoff, R., and Cantor, M., disazo-dyes, (P.), B., 183*.
- General Aniline Works, Inc., and Korten, E., manufacture of condensation products from hydroxybenzenes and hydroaromatic ring-ketones, (P.), B., 706*.
- General Aniline Works, Inc., Kränzlein, G., Greune, H., and Vollmann, H., yellow vat dyes, (P.), B., 757*.
- General Aniline Works, Inc., Kränzlein, G., Greune, H., Zahn, K., and Schmidt, M. P., carbazolequinones and process of preparing them, (P.), B., 896*.
- General Aniline Works, Inc., Kränzlein, G., Heyse, M., and Ochwat, P., preparation of condensation products of the naphthastyril series, (P.), B., 706*.
- General Aniline Works, Inc., Kränzlein, G., and Sedlmayr, R., condensation product of the anthraquinone series and its manufacture, (P.), B., 51.
- General Aniline Works, Inc., Kränzlein, G., and Vollmann, H., preparation of benzanthronecarboxylic acids, (P.), B., 182*.
- manufacture of condensation products of the [di]benzpyrenequinone series, (P.), B., 183*.
- General Aniline Works, Inc., Kränzlein, G., and Voss, A., preparation of magnesium dichromate, (P.), B., 946*.
- General Aniline Works, Inc., Kramer, E., Zeh, L., and Bollweg, B., sulphur dyes, (P.), B., 606*, 653*.
- General Aniline Works, Inc., and Krzikalla, H., production of complex metal compounds of *o*-hydroxyazo-dyes, (P.), B., 757*.
- General Aniline Works, Inc., Krzikalla, H., and Kämmerer, H., treatment of complex metallic compounds of *o*-hydroxyazo-dyes, (P.), B., 757*.
- General Aniline Works, Inc., Laska, L., and Zitscher, A., manufacture of azo-dyes from 2:3-hydroxynaphthoic acid arylides, (P.), B., 234*.
- manufacture of azo-dyes insoluble in water, (P.), B., 707*.
- manufacture of fast azo-dyes, (P.), B., 757*.
- manufacture of azo-dyes, (P.), B., 983*.
- General Aniline Works, Inc., Lüttringhaus, A., and Kačer, F., production of alkyl ketones of the anthracene series, (P.), B., 856*.
- General Aniline Works, Inc., Lüttringhaus, A., Nawiasky, P., and Krause, A., manufacture of [yellow] vat dyes, (P.), B., 317*.
- General Aniline Works, Inc., Lüttringhaus, A., and Wolff, Hugo, manufacture of isodibenzanthrones, (P.), B., 137*.
- General Aniline Works, Inc., Mauthe, G., and Thauss, A., preparation of a product obtainable by treating wool fat with a sulphonating agent, (P.), B., 1163*.
- General Aniline Works, Inc., Mayer, F., and Zahn, K., preparation of sulphur-containing hydroxyquinones, (P.), B., 755*.
- General Aniline Works, Inc., and Metzger, R., dyeing of cellulose acetate silk, (P.), B., 944.
- General Aniline Works, Inc., Meyer, K. H., Hopff, H., and Krause, A., manufacture of *m*-substituted benzoylaminoanthraquinones [vat dyes], (P.), B., 366*.
- General Aniline Works, Inc., Mieg, W., and Heidenreich, R., condensation product of the perimidone series, (P.), B., 809.
- General Aniline Works, Inc., Mieg, W., and Raeder, H., dianthraquinonylaminesulphonic acid dye, (P.), B., 10*.
- General Aniline Works, Inc., and Mildner, H., manufacture of β -sulphophthalic acid, (P.), B., 941.
- General Aniline Works, Inc., and Nawiasky, P., acylaminodibenzanthrones and products resulting therefrom by treatment with alkylating agents, (P.), B., 653*.
- General Aniline Works, Inc., Nawiasky, P., and Müller, Joachim, production of vat dyes, (P.), B., 183*.
- General Aniline Works, Inc., Neelmeier, W., and Hentrich, W., azo-dyes derived from aminoacylaminoalicyldiphenylsulphones, (P.), B., 411*.
- General Aniline Works, Inc., Neelmeier, W., and Nocken, T., dyes of the phenonaphthazine series obtained from 3-arylamino-1:8-naphthasultam compounds, (P.), B., 411.
- General Aniline Works, Inc., Neresheimer, H., and Schneider, Wilhelm, vat dyes, (P.), B., 653*.
- General Aniline Works, Inc., Nicodemus, O., and Berndt, W., preparation of carbocyclic hydrocarbons, (P.), B., 1059*.
- General Aniline Works, Inc., and Pfeffer, E., printing with vat dyes, (P.), B., 945*.
- General Aniline Works, Inc., and Rabe, P., increasing the fastness to light of basic dyes, (P.), B., 54*.
- General Aniline Works, Inc., Rudolf, L., and Zschimmer, B., manufacture of colour lakes, (P.), B., 1061*.
- General Aniline Works, Inc., Runne, E., Moldaenke, K., and Fischer, E., manufacture of alkoxy-3-ketodihydrothionaphthens, (P.), B., 856*.
- General Aniline Works, Inc., Schirmacher, K., and Eishold, K., [thioindigo] dyes, (P.), B., 983*.
- General Aniline Works, Inc., Schirmacher, K., and Schirmacher, W., preparation of [aromatic] diazosulphamic acids, (P.), B., 410*.
- General Aniline Works, Inc., Schirmacher, K., Schlichenmaier, H., and Kross, W., preparation of tetrahydronaphthastyrils, B., 182*.
- General Aniline Works, Inc., and Schmidt, Karl, dyes of the triphenylmethane series, (P.), B., 653.
- General Aniline Works, Inc., Schmidt, R. E., and Stein, Berthold, manufacture of 2:7-dinitroanthraquinone, (P.), B., 604*.
- General Aniline Works, Inc., and Schweitzer, Hugo, production of trisazo-dyes, (P.), B., 653*.
- [solubilised *o*-hydroxy-azo-dyes, (P.), B., 983*.
- General Aniline Works, Inc., Schweitzer, Hugo, and Neelmeier, W., aminodiarylsulphonopyrazolone-azo-dyes, (P.), B., 653*.
- General Aniline Works, Inc., and Sohst, O., production of azo-dyes [pigments and ice colours], (P.), B., 550*.
- General Aniline Works, Inc., Spengler, O., and Müller, Werner, dyeing of cellulose acetate threads, (P.), B., 815*.
- General Aniline Works, Inc., and Staehlin, O., manufacture of stable diazo-salt preparations, (P.), B., 234*.
- General Aniline Works, Inc., and Thauss, A., sulphurised compounds of phenols, (P.), B., 550*.
- General Aniline Works, Inc., Thauss, A., and Mauthe, G., preparation of water-soluble product derived from the fatty acids occurring in wool fat, (P.), B., 1163*.
- General Aniline Works, Inc., Thiess, K., and Diecke, B., preparation of sulphonated water-soluble dyes of the diaminodiphenyl series, (P.), B., 1145*.
- General Aniline Works, Inc., Thiess, K., Gmelin, W., and Zahn, K., alkaline condensation products [vat dyes] of *Bz*-1-ethers of benzanthrone, (P.), B., 757*.
- General Aniline Works, Inc., Thiess, K., Meissner, T., and Müller, C. J., indigoid vat dyes, (P.), B., 707*.

- General Aniline Works, Inc., Trautner, W., Stein, Berthold, and Berliner, R., manufacture of 1-phenylbenzanthrone compounds, (P.), B., 136*.
production of 1[3]-phenylbenzanthrone compounds, (P.), B., 652*.
- General Aniline Works, Inc., and Virok, P., condensation product [of a phenol], containing sulphur, (P.), B., 136*.
production of fast dyes and printings, (P.), B., 987*.
dyeing of pelts, hairs, feathers, etc., (P.), B., 987*, 1107*.
- General Aniline Works, Inc., and Voetter, E., [manufacture of] sulphur dye pastes, (P.), B., 411*.
- General Aniline Works, Inc., and Wagner, Hermann, manufacture of azo-dyes, (P.), B., 653*.
- General Aniline Works, Inc., Wagner, Hermann, Eichwede, H., and Fischer, E., dyeing mixed textile goods made of wool and silk fibres, (P.), B., 140*.
preparation of azo-dyes, (P.), B., 606*.
- General Aniline Works, Inc., Wagner, Hermann, and Fischer, E., yellow mono-azo-dye, (P.), B., 317*.
- General Aniline Works, Inc., Wagner, Hermann, Hoffa, E., Runne, B., Thoma, E., and Heyna, H., [manufacture of] azo-dyes, (P.), B., 503*.
- General Aniline Works, Inc., Wagner, Hermann, Sohst, O., and Rachor, J., azo-dyes, (P.), B., 757*.
- General Aniline Works, Inc., and Wahl, O., preparation of dyes derived from indoline bases, (P.), B., 550*.
- General Aniline Works, Inc., and Weinand, K., production of homonuclear aminoalkylaminoanthraquinonesulphonic acids, (P.), B., 136*.
- General Aniline Works, Inc., Wilke, K., and Stock, J., preparation of vat dyes of the anthracene series containing nitrogen, (P.), B., 653*.
- General Aniline Works, Inc., and Wolesleben, G., production of black trisazo-dyes, (P.), B., 183*.
- General Aniline Works, Inc., Wulff, O., Sedlmayr, R., and Eckert, W., preparation of aromatic diacidyl compounds, (P.), B., 316*.
- General Aniline Works, Inc., and Zeh, L., manufacture of diphthylene dioxide quinone, (P.), B., 410*.
- General Aniline Works, Inc., Zitscher, A., and Muris, F., production of fast printings, (P.), B., 64.
- General Carbonic Co., regulating and maintaining heat-transfer [e.g., during vulcanisation], (P.), B., 645.
- General Chemical Co., and Adamson, G. P., generation of hydrochloric acid gas, (P.), B., 1108.
- General Chemical Co., and Allen, W. S., treatment of gases [for sulphuric acid manufacture], (P.), B., 1026.
- General Chemical Co., Benner, R. C., and Thompson, A. P., production of elemental sulphur, (P.), B., 662.
- General Chemical Co., and Lohmann, W. H., digestion of phosphate rock, (P.), B., 1064.
- General Chemical Co., and Merriam, H. T., contact process for manufacturing sulphuric acid, (P.), B., 555.
- General Chemical Co., and Scott, G. L., continuous production of hydrofluoric acid, (P.), B., 1026.
- General-Direktion der Oesterreichische Tabak-Régie, tobacco poor in nicotine and its manufacture, (P.), B., 586.
- General Dry Batteries, Inc., [zinc container for] electric dry cells, (P.), B., 724.
- General Drying Engineering Corporation. See Strong, W. M.
- General Electric Co., and Alexander, P. P., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., and Alterthum, H., manufacture of macro-crystalline [tungsten] ingot, (P.), B., 515*.
- General Electric Co., and Arsem, W. C., treatment of [unsaturated] oils and other glycerides, (P.), B., 1079.
- General Electric Co., and Bowen, J. P., [gas-filled, multi-filament] electric incandescence lamps, (P.), B., 291.
- General Electric Co., and Boyer, S., [insulating] oil treatment, (P.), B., 1102.
- General Electric Co., and Brittain, F. H., heat-exchanging means particularly applicable to refrigerators, (P.), B., 799.
- General Electric Co., and Campbell, N. R., photo-electric cell, (P.), B., 335.
electric discharge tubes, (P.), B., 428.
manufacture of [cathodes for] photo-electric cells, (P.), B., 869.
- General Electric Co., and Cherry, R. M., electric furnace, (P.), B., 869.
- General Electric Co., and Cox, D. C., reclaiming [mineral insulating] oil, (P.), B., 703.
- General Electric Co., and Devers, P. K., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., and Dushman, S., electrode compositions for electron-discharge devices, (P.), B., 673*.
- General Electric Co., and Forrest, F., electrical precipitation of dust from gases, (P.), B., 201.
- General Electric Co., and Friederich, E., leading-in wire for glass vessels, (P.), B., 150.
- General Electric Co., Fuller, T. S., and Basch, D., [zinc]-aluminium alloy, (P.), B., 1076.
- General Electric Co., and Hobart, H. M., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., Jacoby, R., and Koref, F., manufacture of metal filaments, (P.), B., 107*.
- General Electric Co., and Jones, C. E., electroplating tank, (P.), B., 22.
- General Electric Co., Langmuir, I., and Alexander, P. P., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., and Liempt, J. A. M. van, manufacture of ductile bodies from highly refractory metals [tungsten], (P.), B., 20*.
- General Electric Co., and Nerad, A. J., mercury boiler, (P.), B., 645*.
- General Electric Co., and Nordlander, B. W., mouldable product and its preparation, (P.), B., 1151.
- General Electric Co., Otis, A. N., and Hegel, G. W., [mounting of resistors in] electric furnaces, (P.), B., 246.
- General Electric Co., and Patent-Treuhand-Gesellschaft für elektrische Glühlampen m.b.H., luminous electric-discharge tubes, (P.), B., 201, 428, 775.
[gas- or vapour-filled] luminous electric-discharge tubes, (P.), B., 336.
[spiral filaments for] electric incandescence lamps, (P.), B., 429.
manufacture [scaling-off] of [leaky] electric incandescence lamps, etc., (P.), B., 567.
[tubular] electric incandescence lamps, (P.), B., 825.
[cut-out for] electric incandescence lamps, (P.), B., 870.
electric incandescence lamps, (P.), B., 955.
- General Electric Co., and Pirani, M., manufacture of [solid] bodies of great density [from refractory materials], (P.), B., 327*.
- General Electric Co., Randall, J. T., and Jestly, L. C., [reducing the tendency to "flashing" of] gas-filled electric incandescence lamps, (P.), B., 673.
- General Electric Co., and Schröter, K., manufacture of hard-metal alloys, (P.), B., 427*.
- General Electric Co., and Thompson, H. C., electron-discharge apparatus, (P.), B., 995.
- General Electric Co., and Thomson, E., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., Thomson, E., and Alexander, P. P., electric arc-welding and cutting, (P.), B., 1035.
- General Electric Co., and Valentine, I. R., treatment of malleable [iron] castings, (P.), B., 18.
- General Electric Co., Williams, S. V., and Polgreen, G. R., manufacture of nickel-iron alloys, (P.), B., 617.
- General Engineering Co. (Radcliffe), Ltd., and Taylor, S., impregnation of dielectric materials, (P.), B., 1078.
- General Foods Co., and Birdseye, C., machines for treating fish, (P.), B., 838.
- General Laboratories, Inc. See Yates, J. W.
- General Motors Research Corporation. See Williams, H. M., and Wirshing, R. J.
- General Refractories Co. See Trostel, L. J.
- General Rubber Co. See Esselen, G. J., jun., and McGavack, J., and Rose, R. P.
- General Zeolite Co., production of gels; preparation of zeolites, (P.), B., 1065.
- General Zeolite Co. See also Behrman, A. S.
- Geness, S. G., and Dinerstein, Z. M., relation between carbohydrate and fat metabolism. I. and II., A., 368, 810.
- Geness, S. G. See also Dinerstein, Z. M.
- Genevois, L., metabolism of flours. I. Flour of cotyledons, A., 120.
- Gensecke, W., saponifying free fatty acids contained in vegetable and animal oils and fats with alkali solutions *in vacuo*, (P.), B., 155.
apparatus for purifying oils and fats *in vacuo* by means of steam, etc., (P.), B., 293*.
- Gentile, G., interaction of a hydrogen and a helium atom, and of two helium atoms, A., 1234.

- Gentile, N., radioactivity hypothesis for the "Serono effect" in irradiated phosphatides, A., 515.
- George, A. B. See Bancroft, W. D.
- George, H., and Soci   Quartz & Silice, manufacture of transparent fused silica, (P.), B., 553*.
- George, H. S., and Electro Metallurgical Co., method of soldering [iron-chromium alloys], (P.), B., 913.
- Georgescu, A. See R  dulescu, D.
- Georgescu, I. D. See Nitescu, I. I.
- Georgeson, (Miss) E. H. M., and Hartwell, F. J., "uniform movement" of flame in mixtures of ethylene, propylene, or butylene with air, A., 709.
- Georgi, C. D. V., variations in the amount of ether extract of tuba root (*Derris malaccensis*, Prain), B., 116.
- Georgi, C. D. V., and Buckley, T. A., destructive distillation of coconut shells and oil palm-nut shells, B., 128.
- Georgi, C. D. V., and Curtler, E. A., periodic harvesting of tuba root (*Derris elliptica*, Benth.), B., 115.
- Georgi, C. D. V., and Teik, G. L., pulasan [*Nephelium mutabile*] and rambutan [*N. lappaceum*] fats, B., 23.
- Kepayang oils, B., 154.
- Georgi, E. A., photographic estimation of foreign materials in gums and resins, B., 926.
- Georgievski, V. I. See Przeborovski, J. S.
- G  rard. See Marie, C.
- G  rard, A., detection and determination of tung oil, B., 382.
- Gerard, M. E. See Mouchel & Partners, Ltd., L. G.
- Gerard, R. W., oxygen consumption of nerve during activity, A., 1613.
- Gerard, R. W. See also Holmes, E. G., and Necheles, H.
- Gerasimov, A. F., and Kozirev, B. M., mercury hydrogel, A., 1114.
- Gerasimov, A. F., and Matveev, G. P., copper hydrogel, A., 1114.
- Gerasimov, A. F., and Morozov, I. S., antimony hydrogel, A., 1114.
- Gerasimov, A. F. See also Aleev, A. E., and Vozdvijenski, G. S.
- Gerasimov, I., equilibrium in the quaternary system $\text{Na}_2\text{Cr}_2\text{O}_7$ - NH_4Cl - H_2O , A., 702.
- Gerber, A. B. See Booth, C. F.
- Gerber, H. See Loevenich, J.
- Gercke, A. See H  ckel, W.
- Gerdes, C., "fl  ssiggas," B., 801.
- Gerdien, H. See Siemens & Halske A.-G.
- Gerding, H. See Smits, A.
- Gerhardt, F., effect of acid and alkaline hydrolysis on the determination of hemicellulose and associated groups in young apple wood, A., 506.
- commercial possibilities of the common milk-weed, B., 503.
- Gericke, W. F., variation in the percentage of protein in the grain of a single wheat plant, A., 826.
- plant-food requirement of rice, B., 580.
- fertilising solution for seed treatment, (P.), B., 1166.
- Gerisch, E. See Goldschmidt, S.
- Gerke, R. H., thermodynamics of stressed vulcanised rubber, B., 250.
- Gerlach, F. See Siemens-Schuckertwerke A.-G.
- Gerlach, M., horsetail poisoning and its prevention, A., 812.
- cold- and hot-fermented dung, B., 73.
- determination of assimilable nutrients in soils, B., 208.
- changes in soil reaction produced by ammonium, potash, and potash ammonium superphosphate, B., 784.
- removal of the bitter principle of lupin seed by Thom's process, B., 1090.
- use of superphosphate, "ammonium superphosphate," and "potash ammonium superphosphate," B., 1124.
- Gerlach, W., constitution of water and the Raman effect, A., 274.
- heat radiation or resonance radiation of carbonic acid? A., 520.
- Raman spectrum of crystalline and dissolved nitrates, A., 603, 840.
- Raman spectra of crystalline nitrates, A., 840.
- Raman bands of water, A., 1091.
- pure crystalline iron for the study of ferro-magnetism, A., 1350.
- magnetic characteristics of iron crystals, A., 1355.
- Gerlach, W., and Schneiderhan, K., ferromagnetism and electrical properties. I. Resistance, magnetic change of resistance, and true magnetisation at the Curie point, A., 1505.
- Gerley, A., and Mackinlay, W. A., manufacture of coal-tar products [e.g., electric insulating material, artificial ebonite, etc.], (P.), B., 937.
- Gerlough, T. D., rate of thermal decomposition of the oxytocic principle of the posterior lobe of the pituitary gland. 1. Effect of hydrogen-ion concentration, A., 503.
- Gerlough, T. D., and Bates, R. W., rate of thermal decomposition of the oxytocic principle of the posterior lobe of the pituitary gland. II. Effect of temperature, A., 821.
- German, W. L. See Britton, H. T. S.
- Germann, F. E. E., and Shen, D. K., photography. II. R  le of sensitisers in photography and the latent image, B., 83.
- Germershausen, W., incandescence cathode for discharge tubes, (P.), B., 335.
- Germonth, F. G., effect of tetronal on the production of hamatoporphyrin in the urine, A., 247.
- accelerated production of specific urinary pigments by drug administration. I. Effect of phenyldimethylpyrazolone on urobilin formation, A., 496.
- separation and determination of nickel and cobalt, A., 727.
- catalytic oxidation of mercurous nitrate solution by cupric ion, A., 868.
- determination of silver ion, A., 1393.
- Gernelle, J. E., [aeration] treatment of sands in foundry practice, (P.), B., 1116.
- Gernelle-Danloy, J. E., grinding and subdividing apparatus, (P.), B., 970.
- Gerngross, O., determination of water in glue, B., 294.
- violet-fluorescing material in pine bark and its extracts, B., 573.
- Gerngross, O., R  lke, K., and Kali-Chemie Akt.-Ges., disinfectant, antiseptic, and healing medium, (P.), B., 396.
- disinfectant, antiseptic, and medicament, (P.), B., 396.
- Gerngross, O., Triangi, O. G., and Koeppel, P., thermal dis-aggregation of gelatin; (R  ntgenographic study of its degradation), A., 1052.
- Gerngross, O. See also Abitz, W.
- Gerona, F. S., vitamins in [fatty] oils, B., 825.
- Geronazzo, M., analytical controls of sulpholeates used in tanning. II. Sulphoricinoleates (II). III. Sulpholeates, B., 731.
- Gerr, V. F., [preparation of] anti-knock gasoline by cracking various products at the atmospheric pressure, B., 130.
- Gerr, V. F., and Tikhomirova, M. M., action of sulphuric acid on gas from cracked kerosene, B., 130.
- Gersdorff, W. A., study of toxicity [of rotenone] using goldfish, A., 1316.
- Gersdorff, W. A., and Davidson, W. M., new solvents for the active principles of pyrethrum (*Chrysanthemum cinerariaefolium*, Trev.), B., 116.
- Gerstley, J. R., Wang, C. C., and Wood, A. A., influence of feeding on certain acids in the faeces in infants. III, A., 1206.
- influence of feeding on certain acids in the faeces of infants. IV. Effect of an excess of lactose in breast milk and in whole cow's milk on the excretion of volatile acids and of lactic acid, A., 1610.
- Gerthsen, C., examination of field changes in respect of the K-shell by means of H-particles, A., 7.
- ionisation and range of hydrogen canal rays in air and hydrogen, A., 1083.
- Gertler, S. I. See Jamieson, G. S.
- Gertschuk, M. P. See Tschitschibabin, A. E.
- Gervay, W. See Bodn  r, J.
- Gervey, A. J. J. See Nijhoff, G. P.
- Gesellschaft f  r Industriegasverwertung m.b.H., preparing compressed gases under various controllable pressures from their liquid state, (P.), B., 41.
- heat-treatment of steel and iron, (P.) B., 464.
- utilising [by re-compression] the lost and residual gases produced when liquefied gases of low b. p. are drawn off or transferred from one vessel to another, particularly for welding and cutting purposes, (P.), B., 773.
- Gesellschaft f  r K  ltechemie G.m.b.H., and Sautier, H., anti-freezing mixtures for use in radiators, (P.), B., 127.
- Gesellschaft f  r K  ltechemie G.m.b.H. See also Reinhardt, G., jun.
- Gesellschaft f  r Kohlentechnik m.b.H., and H  usser, F., separation of ammonia and benzol hydrocarbons from coal gases containing hydrogen sulphide, carbon dioxide, and oxygen, (P.), B., 805.
- Gesellschaft f  r Linde's Eismaschinen Akt.-Ges., separation of gas mixtures, (P.), B., 3.
- solidification of gases, (P.), B., 127.
- purification of technical gases, more particularly coke-oven gases which are to be subjected to decomposition by low-temperature cooling, (P.), B., 893.
- Gesellschaft f  r Linde's Eismaschinen Akt.-Ges., Pollitzer, F., and Kahle, H., decomposition of gas mixtures, (P.), B., 1136.

- Gesellschaft für Linde's Eismaschinen Akt.-Ges. See also Schufftan, P.
- Gesellschaft für Teerverwertung m.b.H., and Kaffer, H., carrying out catalytic hydrogenation [of hydrocarbons], (P.), B., 546.
- Gesellschaft für Teerverwertung m.b.H., Spilker, A., and Spilker, G., purification of naphthalene, (P.), B., 1059.
- Gesellschaft für Textilveredelung m.b.H. "Getevau." See Freiburger, M.
- Gesenius, H., importance of mitogenetic radiation from human blood in diagnosis of carcinoma, A., 1611.
- metabolic effects of mitogenetic irradiation, A., 1620.
- Geslin, M. See Lepape, A.
- Gessner, G. S., luminescence of zinc sulphide under the action of α -, β -, and γ -rays, A., 1233.
- Gessner, O., toxin of the water snake (*Tropidonotus natrix*). II. Pharmacological action of the blood, saliva, and secretion of the anal glands and of organ extracts; comparison with the blood and secretion of the poison glands of the common European viper, A., 1063.
- Gessner, O., and Craemer, K., salamander alkaloids from the cutaneous secretion of *Salamandra maculosa*, A., 1204.
- Gessner, O., and Schröter, H., uzara. III. Convulsive effect of uzara derivatives on the frog, A., 1214.
- Gestetner, Ltd., D. See De Waele, A.
- Getman, F. H., f. p. of aqueous solutions of the halides of cadmium, A., 31.
- potential of the copper electrode, A., 1123.
- Geuther, T., [preparation of hydrogen by] ignition of powdered zinc, cadmium, and iron with calcium hydroxide, B., 322.
- Gewerkschaft Gustav, and Aockerblom, O., operation of steam-heated dryers and apparatus therefor, (P.), B., 305.
- Gewerkschaft M. Stinnes, purification of coal-distillation gas, (P.), B., 805.
- purifying from naphthalene the distillation gases of coal, (P.), B., 1055.
- Geyer, A., aluminium alloy, (P.), B., 427*.
- Gfeller, H., determination of essential oils [in drugs], B., 883.
- Gheorghiu, C. V., and Arventiev, B., condensation of methyl isobutyl ketone with anisaldehyde. II. Phototropy of semicarbazones of ethylenic ketones, A., 604.
- Gheorghiu, G., action of hydrazine on pyridine-2,3-dicarboxylic anhydride; formation of the corresponding cyclic hydrazide, A., 1191.
- Gheorghiu, T. D., absorption of copper *d*- and *l*-tartrates and of their mixture, A., 132.
- Ghigi, E., nuclear homologues of hydrogenated carbazole and pyrazolone derivatives of α -tetralone, A., 787.
- Ghigi, E. See also Cecchetti, B.
- Ghosh, B. N., scattering of light by stannic oxide sols, A., 32.
- electrokinetic potential and its relation to the rate of coagulation of colloids. I., A., 159.
- Ghosh, D. N., rhythmic formations, A., 1370.
- Ghosh, J. C., determination of copper in commercial aluminium, B., 512.
- Ghosh, J. C., and Bakshi, J. B., effect of poisons on the velocities of dehydrogenation of methyl alcohol and formaldehyde at a surface of copper catalyst activated with ceria as promoter, A., 172.
- Ghosh, J. C., and Bhattacharyya, P. B., removal of ions from solutions of calcium dihydrogen phosphate by treatment with hydrous gels of alumina, silica, and their mixtures, B., 507.
- Ghosh, J. C., and Chakravarti, S. N., extinction coefficient of mixtures of copper sulphate with dextrose, glycerol, and sodium formate in the ultra-violet as experimental evidence in favour of the formation of unstable intermediate compounds. IV., A., 410.
- absorption spectra of mixtures of dilute solutions of copper sulphate and sodium sulphite in the red and ultra-violet, A., 410.
- Ghosh, J. C., and Dutt, S. C., variation of the surface tension of aqueous solutions of certain dyes with time, A., 408.
- Ghosh, J. C., and Nandy, S. K., photochemical oxidation of formaldehyde by hydrogen peroxide in acid medium with tungstic acid sol as photo-catalyst, A., 554.
- photochemical decomposition of acetaldehyde solution, A., 555.
- Ghosh, J. C., and Purkayastha, R. M., photochemical reduction of ferric salts by mandelic, lactic, and tartaric acids, A., 555.
- quantum yield in the photo-bromination of organic hydroxy-acids in relation to the frequency of the exciting light, A., 1260.
- Ghosh, J. C., and Purkayastha, R. M., differences in mechanism of addition and substitution reactions in photo-bromination of organic compounds, A., 1260.
- Ghosh, J. C. See also Purkayastha, R. M.
- Ghosh, P. N., and Chatterjee, B. D., high-frequency discharges. II. Methane and its chloro-derivatives, A., 1497.
- Ghosh, P. N., Mahanti, P. C., and Mukherjee, B. C., vibrational quantum analysis of the blue-green bands of magnesium oxide, A., 1075.
- Ghosh, S., and Bhattacharya, A. K., photochemical reduction of tungstic and molybdic acids, A., 1533.
- Ghosh, S., and Dhar, N. R., stability of the sols of tungstic, vanadic, and silicic acids, A., 157.
- behaviour of silicic, vanadic, tungstic, molybdic, antimonie, and telluric acids in the colloidal state, A., 993.
- Ghosh, S. See also Bhatia, L. S., and Chakravarti, M. N.
- Ghosh, T. N., and Guha, P. C., extension of Michael's reaction. I. Action of ethyl carbamate on esters of unsaturated acids. II. Action of ethyl carbamate on carbimides and thiocarbimides, A., 930.
- Ghosh, T. N. See also De, S. C.
- Ghrühl, A. See Reihlen, H.
- Giachalone, A., condensation of aldehydes with hydrazones. I. Condensation of benzaldehyde with benzaldehydephenyl-hydrazone, A., 213.
- Giannotti, M. See Banchi, G.
- Giaque, W. F., and Johnston, H. L., isotope of oxygen, mass 17, in the earth's atmosphere, A., 187.
- Gianque, W. F. See also Johnston, H. L.
- Gibb, J. A., and Zieley Processes Corporation, distillation apparatus [for oils], (P.), B., 1101.
- Gibb, W. E. See Norris, E. R.
- Gibbons, N. E., and Reed, G. B., effect of autolysis in sterile tissues on subsequent bacterial decomposition, A., 644.
- Gibbons, W. A., flexing test for [rubber] tyre carcass stocks, B., 250.
- Gibbons, W. A., Binmore, T. V., and Mechanical Rubber Co., manufacture of hard-rubber varnish and articles made therefrom, (P.), B., 1120.
- Gibbons, W. A. See also Morgan & Wright.
- Gibbons Bros., Ltd., and Bridgford, T. E., muffle furnaces, (P.), B., 798.
- Gibbons Bros., Ltd. See also Moore, B. J.
- Gibbs, O. S., solubility of uric acid in the blood, A., 103.
- Gibbs, R. A. See Kolb, L. J.
- Gibbs, R. C., Johnson, J. R., and Shapiro, C. V., absorption spectrum of blood and its relation to rickets, A., 1311.
- Gibbs, R. D., sinkage [of pulp-wood]. II. Seasonal distribution of water and gas in trees, A., 1322.
- Gibbs, R. D. See also Searth, G. W.
- Gibbs, W. E., formation and growth of crystals, B., 351.
- factors affecting the problem of smoke prevention, B., 1007.
- Gibbs, W. E., and Liander, H., catalytic activity of nickel in the form of aerosol and aerogel, A., 1532.
- Gibert, S. See Rathery, F.
- Giberton, A., synthesis of fats in the presence of pancreatic extract, A., 817.
- Gibian, K. See Späth, E.
- Gibson, A. G., [heat-insulating board from straw], B., 456.
- Gibson, C. S., Hiscocks, E. S., Johnson, J. D. A., and Jones, J. L., 10-chloro-5:10-dihydrophenarsazine and its derivatives. XIII. Absorption spectra, A., 1195.
- Gibson, C. S., and Johnson, J. D. A., 10-chloro-5:10-dihydrophenarsazine and derivatives. XI. Mono-, di-, and trimethyl derivatives, A., 231.
- 10-chloro-5:10-dihydrophenarsazine and its derivatives. XII. 1- and 3-Methyl derivatives, A., 938.
- Gibson, C. S., Johnson, J. D. A., and Vining, D. C., compounds of arsenious chloride and pyridine, A., 1191.
- constitution and properties of 10-chloro-5:10-dihydrophenarsazine and some derivatives, A., 1601.
- Gibson, C. S., and Levin, B., nor-*d*- ψ -ephedrine, a convenient base for the resolution of externally compensated acids; resolution of *dl*-benzenesulphonylalanine and of *dl*-*N*-phenylalanineamide-4-arsinic acid, A., 211.
- compounds of tryptansamide type. II. Resolution of *dl*-2*N*-methylphenylalanineamide-4-arsinic acid, A., 230.
- Gibson, C. S., Penfold, A. R., and Simonsen, J. L., essential oil of *Backhousia angustifolia*. II. Isolation of naturally occurring β -diketones: angustione and dehydroangustione, A., 921.

- Gibson, C. S., and Simonsen, J. L., constitution of aloins. II, A., 609.
- Gibson, C. S. See also Elson, L. A.
- Gibson, D. T., 1:3-dithiolan, A., 349.
- Gibson, J. A., *jun.* See Gillespie, L. J.
- Gibson, R. E. See Adams, L. H., and Kracek, F. C.
- Gibson, W. See Imperial Chem. Industries, Ltd.
- Giddings, M. L. See Daniels, A. L.
- Giebenhain, H. See Magnus, A.
- Giertz-Hedström, S. See Odén, S. L. A.
- Giese, H. See Schwarz, R.
- Giese, M., and Hell, F., piston pump for raising viscous mixtures such as concrete, mortar, etc., (P.), B., 821.
- Giesecke, F., soils of Anatolia and eastern Thrace, A., 1017.
- composition of some Turkish soil-improving "carths," B., 72.
- nutrient content of Turkish soils, B., 72.
- Gieseler, K. See Dolch, M.
- Gieser, E. See Lubach, W.
- Giessen, A. See Bunte, K.
- Giger, E., production of mechanical work in connexion with the liquefaction of coal, (P.), B., 405.
- Gigon, A., light and carbohydrate metabolism, A., 1061.
- Gil, J. C., [detection of] fluorine in mineral waters, A., 51.
- Gilard, P., and Swings, P., absorption of glasses in the ultra-violet region, B., 557.
- Gilbart, K. C. See Stansfield, E.
- Gilbert, E. C., hydrazine; hydrolysis of dimethylketazine and the equilibrium between hydrazine and acetone, A., 35.
- Gilbert, F. L. See Lowry, T. M.
- Gilbert, H. N. See Roessler & Hasslacher Chem. Co.
- Gilbert, I., and Frohisher, M., *jun.*, hydrolysis of sodium hippurate, A., 1622.
- Gilbert, M. G. See Ballantine, W. B.
- Gilbert, R. See Schlubach, H. H.
- Gilchrist, B. W. See Ternstedt Manuf. Co.
- Gilchrist, R., gravimetric determination of ruthenium, A., 446.
- Gilchrist & Co. See Wetherbee, A. U.
- Gildemeister, E. See Zeller, H.
- Gile, P. L. See Smith, J. G.
- Giles, I. V. See Barsky, G.
- Gilfoil, W. S., apparatus for obtaining constant liquid flow, A., 1151.
- lubricating greases made from soaps of phenylstearic acid, B., 620.
- Gilkey, W. A. See Park, G. S.
- Gill, A. H., and Tucker, C. M., composition of porpoise-jaw oil, B., 567.
- Gill, F., ionisation in fuel vapours during slow combustion in air, A., 398.
- Gill, G. M., steaming of horizontal chamber ovens, B., 848.
- Gill, S. See Carlton Main Colliery Co., Ltd.
- Gillard, F. W., measuring the intensity of light, (P.), B., 1162.
- Gillaspie, A. See Hauser, C. R.
- Gille, F. See Guttman, A.
- Gillerot, R. See Mund, W.
- Gillespie, H. B., and Marvel, C. S., *s*-dialkyltetra $tert$ -butylethynyl-ethanes, A., 1269.
- Gillespie, L. J., empirical calculation of the fugacities in gaseous mixtures. II. Its relation to the tangents on certain thermodynamic diagrams; approximate equations for some important thermodynamic properties of gas mixtures, A., 292.
- Gibbs-Dalton law of partial pressures, A., 1119.
- Gillespie, L. J., and Beattie, J. A., thermodynamic treatment of chemical equilibria in systems composed of real gases. I. Approximate equation for the mass-action function applied to the existing data on the Haber equilibrium, A., 1357.
- thermodynamic treatment of chemical equilibria in systems composed of real gases. II. Relation for the heat of reaction applied to the ammonia synthesis reaction; energy and entropy constants for ammonia, A., 1508.
- Gillespie, L. J., Lambert, R. H., and Gibson, J. A., *jun.*, heats of neutralisation by the continuous-flow calorimeter, A., 1524.
- Gillet, M., deodorisation of wool fat, (P.), B., 518.
- Gillet & Fils, dyeing of cellulose acetate silk, (P.), B., 280.
- Gilligan, D. R. See Gargill, S. L.
- Gilligan, G. M. See Holland, E. B.
- Gillis, J., solubility of lactose in pyridine, A., 1363.
- Gilman, E. See Fenwick, F.
- Gilman, H., and Beck, L. L., action of ultra-violet light on magnesium isobutyl bromide and *tert*-butyl chloride, A., 330.
- Gilman, H., and Brown, R. E., distillation of magnesium dimethyl from magnesium methyl chloride, A., 76.
- preparation and purification of magnesium diphenyl, A., 487.
- reduction of benzophenone to benzpinacol by means of magnesium amalgam and some observations concerning magnesiumous chloride [magnesium subchloride], A., 778.
- reaction between magnesium diphenyl and bromine; historical note on the first preparation of magnesium phenyl bromide, A., 798.
- magnesium di-*n*-butyl, A., 1028.
- preparation of mercury dialkyls from organo-magnesium halides, A., 1277.
- preparation of magnesium phenyl chloride in absence of solvent, A., 1302.
- Gilman, H., and Dickey, J. B., attempted correlations of constitution with sweet taste in the furan series; very high sweetening power of 5-benzylfurfuraldoxime, A., 923.
- magnesium γ -2-tetrahydrofuryl- α -methylpropyl bromide, A., 923.
- Gilman, H., and Fothergill, R. E., structure and tautomerism of *o*-nitrobenzaldehyde; interference of nitro-groups with the Zerevitinov method for the determination of active hydrogen, A., 342.
- reaction between sulphonyl chlorides and organomagnesium halides, A., 462.
- effect of excess of magnesium on the volume of gas liberated in the preparation of magnesium alkyl halides, A., 1565.
- Gilman, H., Fothergill, R. E., and McGlumphy, J., luminescence resulting from some aryl magnesium halides with nitro-compounds, A., 839.
- sensitivity of the luminescence of some magnesium aryl halides, A., 1092.
- Gilman, H., Fothergill, R. E., and Towne, E. B., interference of nitro-groups in the Zerevitinov method for the determination of active hydrogen, A., 357.
- Gilman, H., and Harris, S. A., reaction between *as*-diphenylethylene and a mixture of magnesium and magnesium iodide, A., 1279.
- Gilman, H., and Heck, L. L., effect of some amino-compounds on the sensitive colour test for reactive organometallic compounds, A., 462.
- Gilman, H., Heck, L. L., and St. John, N. B., relative reactivities of some Grignard reagents with a miscellany of compounds, A., 427.
- Gilman, H., and Hewlett, A. P., trap for carrying out reactions in an inert atmosphere, A., 55.
- vesicant reaction of furfuryl chloroalkyl sulphides, A., 923.
- correlation of constitution with sweet taste in the furan series, A., 954.
- Gilman, H., and Kirby, J. E., rearrangement reactions of magnesium α -naphthylmethyl chloride, A., 80.
- Gilman, H., and Leermakers, J. A., equilibria studies of organo-magnesium halides; irreversible reaction between organo-magnesium halides and halogen acids, A., 462.
- forced reaction between some hydrocarbons and a mixture of magnesium and magnesium halide, A., 899.
- oxidation of magnesium phenyl bromide in presence of lead tetrathyl, A., 1175.
- Gilman, H., and Robinson, J. D., [preparation of] *n*-amylbenzene, A., 758.
- preparation of lead diethyl dichloride and lead triethyl chloride, A., 900.
- organic salts of lead triethyl hydroxide, A., 1277.
- Gilman, H., and St. John, (Miss) E. L., effect of prolonged ebullition on magnesium organo-halides, A., 330.
- factors affecting the rate of Grignard reactions, A., 427.
- Gilman, H., and St. John, N. B., preparation of magnesium phenyl chloride, A., 1028.
- Gilman, H., and Schulz, W. F., reaction between citronellal and organomagnesium halides, A., 1409.
- Gilman, H., and Schulze, F., beryllium dimethyl, A., 75.
- Gilman, H., Sweeney, O. R., and Heck, L. L., delicate colour test for Michler's ketone and a less sensitive test for carbonyl chloride and dialkylanilines, A., 778.
- Gilman, H., Sweeney, O. R., and Robinson, J. D., effect of branched alkyl groups on anti-knock properties of the lead triethylbutyl compounds, B., 310.
- Gilman, H., and Wright, G. F., constitution of 5-bromofuryl-acrylic acid, A., 479.
- preparation of 5-bromofurfuraldehyde and some of its derivatives, A., 783.

- Gilman, H., and Wright, G. F., preparation of furfurylidene diacetate, A., 923.
 nitrofurfuraldehyde and nitrofurylacrylic acid, A., 1045.
 preliminary formation of additive compounds in substitution reactions of aromatic types; bromination of ethyl 2-furylacrylate, A., 1295.
 nitration of furfuraldehyde, A., 1592.
- Gilman, H., and Zoellner, E. A., preparation of magnesium triphenylmethyl chloride, A., 80.
 magnesium benzhydryl chloride and the apparent prior formation of free benzhydryl radicals, A., 1569.
- Gilmore, R. E., and Strong, R. A., coking tests on coals from Western Canada, B., 128.
- Gilmore, R. E., Swinnerton, A. A., and Connell, G. P., assay of bituminous sands, B., 129.
- Gilroy, E., influence of arginine on the growth rate of a transplantable tumour in the mouse, A., 948.
 comparison of effects of arginine and thyroxine on tumour growth-rate in the mouse, A., 1309.
 avitaminosis-B in relation to tumour growth, A., 1468.
- Gimignani, L. See Levi, T. G.
- Gimmy & Diepold Ges.m.b.H., treatment [varnishing] of fish-bone bristles, (P.), B., 99.
- Gindis, P. See Schwarzberg, B.
- Gingras, E. F. See Liquid Veneer Corp.
- Gingrich, N. S., analysis of scattered X-rays with the double-crystal spectrometer, A., 1491.
- Ginnings, D. C., and Phipps, T. E., temperature-conductivity curves of solid salts. III. Lithium halides, A., 705.
- Ginnings, P. M., differential fractional distillation, A., 1014.
- Ginnings, P. M., and Robbins, D., ternary systems water, *tert*-butyl alcohol, and salts at 30°, A., 989.
- Ginsberg, H., determination of sulphate in the presence of aluminium fluoride, A., 441.
- Ginsberg, H., and Holder, G., potassium fluotitanate, K_2TiF_6 , and the preparation of an oxyfluoride of hydrofluotitanic acid, I., A., 1007.
- Ginsburg, J. M., arsenical injuries [to foliage] and correctives, B., 297.
 test to determine toxicity of pyrethrum vapours to honeybees, B., 834.
- Ginsburg, J. M. See also Headlee, T. J.
- Giordani, F., and Focaccia, B., polarisation phenomena, A., 423.
- Giordani, F., and Maresca, T., conductometric behaviour of sodium chloride solutions, A., 421.
 conductometric behaviour of solutions of sodium chloride and hydroxide, A., 421.
 conductometric behaviour of sodium hydroxide solutions, A., 421.
- Giordani, F., and Matthias, E., thermochemistry of the higher oxides of nickel, A., 295.
- Giorgi, F. See Ferrari, A.
- Giragosintz, G., and Olmsted, J. M. D., sources of error in weights of small muscles frozen in liquid air, A., 828.
- Giral, J., Spanish seaweeds; algin, A., 259.
 mucilages, B., 211.
- Girard, J. See Richon, L.
- Girard, P., and Parrod, J., formation of 4-hydroxymethylglyoxaline at low temperatures from laevulose and an ammoniacal solution of copper hydroxide, A., 480.
- Girard, P., and Petit, F., treatment of asphaltic bituminous and resinous products, (P.), B., 406.
- Girardet, L. F. C., sizing of paper, (P.), B., 414.
- Girault, M. A. J. L. F., production of feeding-stuff from cellulose, (P.), B., 301.
- Giroud, A., chemical nature of the chondriome, A., 1608.
- Giršavičius, J. O., antiglyoxalase. I. Action of pancreatic extract on phenylglyoxal, A., 814.
 methylglyoxal as an intermediary in fermentation, A., 958.
- Girsewald, C. von, production of aluminium-silicon alloys free from carbide, (P.), B., 334*.
- Girsewald, C. von, and Neumark, H., manufacture of zinc from oxygen compounds of zinc or substances containing them, (P.), B., 427*.
 manufacture of anhydrous zinc chloride by reacting zinc oxide with chlorine, (P.), B., 508.
- Girshovich, N. G., and Vidin, E. K., theory of the malleabilising process, B., 909.
- Gisolf, W. F., rocks of the Katmai region (Alaska), A., 189.
- Gittings, L. D. See McCullough, R.
- Giua, M., condensation reactions, A., 67.
- Giua, M., and Racciu, G., rosinification. I. Condensation of formaldehyde with urethane, A., 746.
 influence of substituents on the stability of cyclic compounds, A., 1045.
- Giuntini, J., compounds of tartaric acid with copper, A., 1516.
- Giuscă, D., minerals of Transylvania, A., 316.
 petrological study of sulpharsenites from the Binnental, A., 569.
- Given, F. J., and Bell Telephone Laboratories, Inc., manufacture of magnetic cores, (P.), B., 152.
- Given, F. J., Greenidge, R. M. C., Weeks, J. R., jun., and Bell Telephone Laboratories, Inc., production of magnetic bodies [cores, etc.], (P.), B., 1162.
- Gjaldhæk, J. K., antiformin and antiformin substitutes, B., 658.
- Glaeser, W., and Glaeser Research Corporation, production of mercury, (P.), B., 1115.
- Glaeser Research Corporation. See Glaeser, W.
- Glagolev, K. See Smorodincev, J.
- Glaister, D. See Scott, D. A.
- Glaantz, A. Le R., fluorescence of olive oil under ultra-violet light, B., 916.
- Glaser, A., diamagnetic anomaly in gases. V. Critical examination of methods. I., A., 277.
 diamagnetic anomaly in gases. VI. Critical examination of methods. II., A., 278.
- Glaser, E., and Kahler, O., determination of total fatty acids in faeces, A., 1467.
- Glas-Gleichrichterbau Akt.-Ges. (A.G.G.), joining of copper to difficultly-fusible hard metals [e.g., tungsten], (P.), B., 199.
- Glasgow, A. G. See Humphreys & Glasgow, Ltd.
- Glass, G. See Landau, A.
- Glass, H. B., and Reid, E. E., direct introduction of sulphur into aromatic hydrocarbons, A., 83.
- Glass, J., detection of bile pigments in urine, A., 364.
- Glass, J. V. S. See McLennan, J. C.
- Glassberg, B. Y., arteriovenous difference in blood-sugar content, A., 1607.
- Glassmann, B., and Rochwarger, F., detection of the commencement of putrefaction of flesh, and a method for the determination of ammonium salts of flesh, B., 530.
- Glasstone, S., structure of the isomeric methyl ferrocyanides, A., 461.
 electrolytic polarisation. IX. Complex cyanides: (c) zinc, cadmium, and mercury, A., 864.
- Glasstone, S., and Speakman, J. C., quantitative analysis of mixtures of nickel and cobalt, A., 445.
 electrodeposition of cobalt-nickel alloys, B., 1074.
- Glatz, J., acid-resisting ferroconcrete vessels, (P.), B., 192.
- Glaubbitt, G. See Traube, W.
- Glaubititz. See Staiger.
- Glaze, J. B. See Ridgway, R. R.
- Glaznerová, (Mlle.) A. See Dziewoński, K.
- Glazunov, A., wet method of treating mixed minerals [lead-zinc ores], B., 105.
- Gleadall, J. J. See Coward, H. F.
- Gleason, A. H. See Dougherty, G.
- Gleason, G. H., and Anglo-Chilean Consolidated Nitrate Corporation, manufacture of sodium nitrate, (P.), B., 1027.
- Glen, J., and M'Candlish, A. C. M., factors affecting yield and quality of milk. II. Variations in successive lactations, A., 363.
- Glenn, D. S., and Cruess, W. V., crystallisation of grape concentrates and syrups, B., 925.
- Glichitch, L. S., and Naves, R., oil of petitgrain, B., 37.
- Portuguese petitgrain oil, B., 740.
- Glimm, E., the iodine problem, A., 632.
- Glimm, E., and Wadehn, F., sexual hormone (feminin), A., 646.
- Glinka-Tschernorutzki, H., nitrogen metabolism of *B. mycoides*. III. Effect of dextrose in varying concentrations. IV. Effect of carbohydrates, polyhydric alcohols, and glucosides, A., 959.
 arbutase content of *B. mycoides*, A., 1621.
- Global Corporation. See Shaw, H. N.
- Globig, H., and Pantke, R., production of acetaldehyde in the liver. III. Production in the absence of bacteria, A., 1614.
- Glocker, R., and Graf, L., preparation of definitely oriented single crystals of metals, A., 719.
- Glockler, G. See Lind, S. C.
- Gloes, P., and Marini, M., emulsions and other mixtures of tars, bitumens, oils, etc., (P.), B., 273.

- Gloss, P. See also Cartier, A.
- Glover, A. See Co-Operative Wholesale Soc., Ltd.
- Glover, E. C., Daland, G. A., and Schmitz, H. L., metabolism of normal and leucæmic leucocytes, A., 1207.
- Glover, M. L., [bitumen-coated] concrete, (P.), B., 104.
- Glover, T. B., carburetted water-gas and influence of temperature on the composition of the tar formed, B., 1098.
- Glover, W. H., Diamond, C., and Courtauld, Ltd., manufacture of cellulose derivatives, (P.), B., 708*.
- Glover, W. T., and Toogood, H. J., control of gas-making plants, (P.), B., 751.
- Glover, W. T. See also Meters, Ltd.
- Gloy, H. See Walden, P.
- Glückauf, E. See Cassel, H.
- Glücksmann, E., and Müller, A., manufacture of stable emulsions of paraffin, (P.), B., 741.
- Gluschke, A. See Schroeter, G.
- Glusker, D., lipins of blood-plasma in normal dogs in the post-absorptive state and in fasting dogs, A., 1313.
- Gluid, W., and Dieckmann, C., action of electrical discharges on thiocyanic acid, A., 1027.
- Gluid, W., Keller, K., and Klempt, W., oxidation of thiocyanic acid and ammonium thiocyanate to hydrocyanic acid by atmospheric oxygen, A., 722.
- Gluid, W., Klempt, W., and Brodkorb, F., desulphurisation of gases either free from or containing ammonia by the process of the Ges. f. Kohlentechnik, B., 309.
- Gluid, W., and Löpmann, B., simplified soda process with fixation of ammonia, B., 371.
- Gluid, W., and Riese, W., rate of oxidation of ferrous hydroxide and ferrous sulphide to ferric hydroxide, A., 169.
- Gluid, W., Schönfelder, R., Riese, W., and Bergwerksverband zur Verwertung von Schutzrechten der Kohlentechnik, production of pure sulphur, (P.), B., 905.
- Gmelin, P. See I. G. Farbenind. A.-G.
- Gmelin, W. See Gen. Aniline Works, Inc.
- Gminder, G. See Eichler, H.
- Gnädinger, C. B., and Corl, C. S., pyrethrum flowers. II. Relation between maturity and pyrethrin content. III. Pyrethrin content of different commercial varieties, A., 508.
- pyrethrum flowers. IV. Relative toxicity of pyrethrins I and II, A., 1316.
- Go, Y. See Freudenberg, K.
- Gobert, L., chicory "agglomérés" and their adulteration, B., 391.
- Godal, A., bleaching of fatty acids [of marine origin], (P.), B., 518.
- Godard, J. S. See Parsons, C. S.
- Godbe, A. H., and Universal Process Co., separation of solids from liquids [by filtration], (P.), B., 1135.
- Godbert, A. L., combustion of powdered fuel, B., 592.
- Godbole, R. D. See Prasad, M.
- Godchot, M., and Cauquil, (Mlle.) G., methylcycloheptanols, A., 596.
- Godchot, M., and Mousseron, M., new methods of forming 2:5-dimethylpiperazine, A., 617.
- hydrogenation of octahydrophenazine, A., 618.
- Goddard, C. E., proofed or treated cloth and its manufacture, (P.), B., 370.
- Gödel, A., and Société de Recherches et d'Exploitations Pétrolières, separation or recovery of gases and vapours by solid absorbents, (P.), B., 171*.
- Godfrey, A. A. See Linoleum Manufacturing Co., Ltd.
- Goebel, H. See Chem. Fabr. auf Aktien (vorm. E. Schering).
- Goebel, W. E., and Avery, O. T., chemo-immunological studies on conjugated carbohydrate-proteins. I. Synthesis of *p*-aminophenol- β -glucoside, *p*-aminophenol- β -galactoside, and their coupling with serum-globulin. II. Immunological specificity of synthetic sugar-protein antigens, A., 103.
- Goeckermann, W. H. See Sheard, C.
- Goeke, H., face masks for protection against dust or poisonous gases, (P.), B., 220.
- Göler, von, and Sachs, G., improvement of an aluminium alloy as shown by X-rays, B., 1072.
- Gömöry, A., and Pap, L., examination of some varieties of Hungarian wheat, B., 345.
- Goens, E., dynamic method for the determination of the dependence on temperature of the elastic constants of specimens in the form of rods at low temperatures, A., 674.
- Göppert, (Frl.) M., probability of the simultaneous action of two light quanta in one elementary process, A., 272.
- Görgel, B. See Schneck, A.
- Görlacher, H. See Tansz, J.
- Görnitz, K. See Chem. Fabr. auf Aktien (vorm. E. Schering).
- Goeth, F. See Salmang, H.
- Goethals, C. A., mechanism of electrical conduction in solid salts, A., 704.
- Goetz, A., mechanical and magnetic factors influencing the orientation and perfection of bismuth single crystals, A., 401.
- experimental evidence of the mosaic structure of bismuth single crystals, A., 670.
- Götzky, S. See Schroeter, G.
- Gogan, J., apparatus for testing materials [for hardness], (P.), B., 692.
- Gohin, J., portable gas producers, (P.), B., 182.
- Gohr, H., titrimetric determination of lactose in milk, B., 739.
- Goig, S., compressibility of carbon monoxide at 0° and ordinary temperature between 50 and 130 atm., A., 987.
- Gokhlé, B., and Mason, F. A., naphthalene series. I. Methylation of α -naphthylamine, A., 1279.
- Golaz, P. See Guillemet, R.
- Golbert, A. L., and Wheeler, R. V., relative inflammability of coal dusts: a laboratory study, B., 171.
- Gold Dust Corporation. See Thurman, B. H.
- Goldach, A. See Fichter, F.
- Goldach, J., sticking or cementing of leather [with celluloid solution], (P.), B., 27.
- Goldammer, R., and Sack, H., anomalous dispersion of polar solutions, A., 540.
- Goldarbeiter, H., bleaching of animal fibres and substances [e.g., furs, feathers], (P.), B., 54.
- bleaching of [sensitive vegetable and animal] fibres and fabrics, (P.), B., 320.
- bleaching of materials for the manufacture of hats, (P.), B., 505.
- Goldarbeiter, H. See also Böhm, V.
- Goldberg, D. See Gukhman, L.
- Goldberg, R. See I. G. Farbenind. A.-G.
- Goldblatt, L. A. [with Lowy, A., and Burnett, W. B.], nitration of abietic acid and the study of some of its nitrogen derivatives, A., 920.
- Goldblatt, M. W., action of insulin on the glycogen distribution in normal animals, A., 1320.
- Golde, T. See Karrer, P.
- Goldenberg, A., effect of different methods of preparation of sole leather on resistance to wear, B., 733.
- Goldenberg, I. See Zuverkalov, D.
- Goldfarb, J. L., syntheses in the thiophen series using stannic chloride, A., 1592.
- Goldfinger, P. See Farkas, L.
- Goldflamówna, R. See Szperl, L.
- Goldhammer, H., attempted isolation of the female sexual hormone: precipitation with antimony pentachloride, A., 118.
- cholesterol content of normal and eclamptic placenta, A., 1611.
- Goldhammer, H., and Kuen, F. M., alleged vitamin-A reaction with antimony trichloride and its appearance in the oxidative change of cholesterol. I., A., 118.
- Golding, J. See Crawford, M. E. F., and Davis, J. G.
- Goldman, F. H. See La Mer, V. K.
- Goldman, L., determination of p_H in tan liquors, B., 628.
- Goldmann, F., and Rupp, E., passivation of metal surfaces by bombarding electrons, A., 1002.
- Goldschmidt, F., [gas-works'] benzol recovery, B., 975.
- Goldschmidt, H., reactions in basic solvents, A., 1380.
- Goldschmidt, S., and Nagel, F., attempted syntheses of symmetrical aryl- and benzoyl-substituted ethanes, A., 917.
- Goldschmidt, S., Schulz, E., and Bernard, H., univalent oxygen. V. Dehydrogenation of *o*-cresol, A., 467.
- Goldschmidt, S., and Strauss, K., proteins. VI. Degradation of polypeptides by hypobromite, A., 898.
- proteins. VIII. Silk fibroin. I., A., 940.
- Goldschmidt, S., Wolff, R. R., Engel, L., and Gerisch, E., proteins. IX. Degradation of ovalbumin by hypobromite, A., 1197.
- Goldschmidt, V. M., presence of germanium in meteorite from Cranbourne, A., 571.
- Goldschmidt, V. M., Knudsen, R., and Borgestad Fabrikker, production of ceramic material and binding agent therefor, (P.), B., 558*.
- Goldschmidt, V. M. See also Metallges. Akt.-Ges.

- Goldschmidt Akt.-Ges., *T.*, decomposition of sodium salts with hydrofluoric acid and ammonia to produce sodium fluoride and an ammonium salt, (P.), B., 187.
production of colloidal white lead [basic lead carbonate], (P.), B., 338.
production of emulsions, (P.), B., 725.
- Goldschmidt Akt.-Ges., *T.* See also Schertel, *L.*
- Goldsmith, *B. B.*, Grossman, *H.*, and American Lead Pencil Co., manufacture of pencil lead, (P.), B., 338.
- Goldsmith, *J. W.* See Spicers, Ltd.
- Goldstein, *H.*, camphor substitutes, B., 882.
- Goldstein, *H.*, and Grampolov, *A. V.*, 2-iodo-5-nitrobenzoic acid, A., 772.
- Goldstein, *L.*, intensity distribution in the fine structure of hydrogen, A., 123.
relativistic treatment of the [electronic] problem of many bodies, A., 131.
distribution of potential and of charge in a diatomic molecule, A., 1093.
relativistic treatment of the atom with several electrons, A., 1234.
exclusion principle and intramolecular statistics, A., 1341.
statistical evaluations of the coulomb energy of interaction in a molecule, A., 1496.
- Goldstern, *A.* See Gross, *P.*
- Gollan, *J. H.*, rutoside in fresh flowers of *Forsythia pendula*, L., A., 259.
new apparatus for the mechanical analysis of soils by displacement, B., 161.
- Gollnow, *G.*, measurement of the corrosion of metals, A., 1002; B., 379.
- Golovin, *P. V.*, glycerin from molasses, B., 30.
molar coefficient of impurities and coagulating method for purifying [sugar] diffusion juices, B., 634.
- Golovin, *P. V.*, Bryukhanova, *N. A.*, and Fridman, *A. I.*, extraction of crystallised levulose, B., 343.
- Golse, *J.*, determination of nitric acid and nitrates by reduction with ferrous salts, A., 51.
sensitive reaction for arsenic acids and its use in distinguishing between methylarsinates and cacodylates, A., 442.
action of silver nitrate on solutions of mercuric and potassium iodides, A., 719.
determination of thiocyanate by oxidation with sodium hypobromite, A., 1144.
manganometric determination of thiocyanate, A., 1144.
determination of cyanide in ferro- and ferri-cyanides, A., 1145.
complete precipitation of copper as cuprous thiocyanate. I. Volumetric modification of the method of determining thiocyanates by means of sodium hypobromite, A., 1148.
volumetric determination of very small quantities of silver, A., 1264.
- Goltzschmidt, *V. A.*, simultaneous solubility of two substances in one solution, A., 850.
- Golubev, *A. A.* See Karyakin, *I. M.*
- Golubovski, *A.* See Jellinek, *K.*
- Gomberg, *M.*, and Bachmann, *W. E.*, action of the system $Mg + MgBr_2$ on triphenylcarbinol, triphenylmethyl bromide, and triphenylmethyl, A., 1030.
- Gomberg, *M.* See also Clarkson, *R. G.*
- Gondo, *K.*, gastric lipase in healthy breast-fed infants, A., 238.
- Gonein, *J.* See Thoms, *H.*
- Gonell, *H. W.*, setting and hardening of Portland cement in the presence of water-soluble compounds, B., 103.
- Gontscharov, *P. I.*, cryoscopic examination of mixtures of electrolytes, A., 409.
- González, *A.*, colorimetric determination of phenols in sera, A., 236.
menthol series; hydrogenation of pulegone, A., 921.
- Good, *A. C.* See Carr, *A. R.*
- Good, *H. C.* See Bennett Day Importing Co., Inc.
- Goodall, *C.*, drying or like treatment of timber and other materials, (P.), B., 949.
[compressed-air apparatus for] impregnation of timber, (P.), B., 1154.
- Goodall, *F. L.*, diagnosis of colour faults in finished [wool] goods, B., 1023.
- Goode, *R. E.*, laboratory generator for making hypochlorite, A., 186.
- Goodeve, *C. F.*, and Stein, *C. P.*, absorption spectrum of chlorine dioxide, A., 11.
- Goodeve, *C. F.*, and Wallace, *J. I.*, absorption spectrum of chlorine monoxide, A., 660.
- Goodhue, *L. D.*, White, *Ann.*, and Hixon, *R. M.*, structure of chloraloses; β -xylochloralose, A., 1273.
- Goodman, *J. B.* See Krase, *N. W.*
- Goodrich, *H. R.* See Bennett, *A. L.*
- Goodrich Co., *B. F.*, and Semon, *W. L.*, preservation of rubber, etc., (P.), B., 471, 1122.
- Goodrich Co., *B. F.* See also Geer, *W. C.*, Gray, *H.*, Jones, *P. C.*, and Trumbull, *H. L.*
- Goodson, *J. A.*, and Henry, *T. A.*, assay of mixtures of cinchona alkaloids, B., 485.
composition of cinchona febrifuge, B., 882.
- Goodson, *J. A.*, Henry, *T. A.*, and Macfie, *J. W. S.*, action of the cinchona and certain other alkaloids in bird malaria, A., 1310.
- Goodspeed, *G. E.*, recrystallisation of xenoliths at Cornucopia, Oregon, A., 1155.
- Goodway, *N. F.* See Barnett, *E. de B.*
- Goodwin, *E. B.*, rotating filter, (P.), B., 1008.
- Goodwin, *L. C.* See Harben's (Viscose Silk Manufcs.), Ltd.
- Goodwin, *N.*, and Delano Land Co., production of finely-divided carbon, (P.), B., 1100.
- Goodwin, *R. T.*, and Standard Oil Development Co., briquette, (P.), B., 850.
- Goodwin, *T. T.* See Corson, *B. B.*
- Goodwin, *W.*, Martin, *H.*, and Salmon, *E. S.*, fungicidal properties of certain spray-fluids. VI. and VII., B., 632, 877.
- Goodyear, *E. H.* See Scholefield, *F.*
- Goodyear Tire & Rubber Co., and Brittain, *H. A.*, humidity-control apparatus [for fabrics], (P.), B., 1022.
- Goodyear Tire & Rubber Co., and Bruson, *H. A.*, manufacture of rubber conversion products, (P.), B., 71.
- Goodyear Tire & Rubber Co., and Clifford, *A. M.*, treatment [increasing the age-resisting properties] of rubber and similar material, (P.), B., 113.
antioxidant or age-resister [for rubber], (P.), B., 113, 294, 730*.
preservation of rubber, (P.), B., 158.
treatment of rubber and similar material, (P.), B., 339, 385.
manufacture of rubber [anti-ageing compounds], (P.), B., 432, 730, 782.
- Goodyear Tire & Rubber Co., Kochheiser, *M. L.*, and Steere, *S. A.*, machine for testing strength and elasticity of material, (P.), B., 224.
- Goodyear Tire & Rubber Co., and Kurtz, *S. S.*, uniting rubber to metal, (P.), B., 472.
- Goodyear Tire & Rubber Co., and Rowland, *B. W.*, manufacture of rubber articles, (P.), B., 729, 873*.
- Goodyear Tire & Rubber Co., and Sebrell, *L. B.*, production of accelerators for the vulcanisation of rubber, (P.), B., 251.
uniting rubber and other substances, (P.), B., 472.
liner [for rubbered fabrics] and treatment of same, (P.), B., 729.
vulcanisation of caoutchouc and product derived therefrom, (P.), B., 730*, 1122*.
treatment of liner [for interposition between layers of rubberised fabric], (P.), B., 1146.
- Goodyear Tire & Rubber Co., and Teppema, *J.*, treatment [increasing the age-resisting properties] of rubber and similar materials, (P.), B., 113.
manufacture of accelerators for rubber vulcanisation, (P.), B., 113, 158.
vulcanisation of rubber, (P.), B., 251.
accelerator of vulcanisation, (P.), B., 472, 573*.
preventing oxidation or retarding ageing of organic compounds [rubber, oils, soaps], (P.), B., 999.
preservation of rubber, (P.), B., 999*.
- Goodyear-Zeppelin Corporation, and Huertle, *K.*, manufacture of [coated fabric for use as] gas containers, (P.), B., 610.
- Goodyear-Zeppelin Corporation. See also Huertle, *K.*
- Goor, *H. van*, increase of insulin content of blood after reflex stimulation of vagus, A., 379.
- Goos, *F.*, Schlubach, *H. H.*, and Schröter, *G. A.*, absorption measurements in the ultra-violet with the thermo-column and their application to problems of sugar chemistry, A., 455.
- Goossens, *J. P.*, combustion of pulverised fuel, more particularly pulverised coal, (P.), B., 977.
- Goost, *T.* See Wedekind, *E.*
- Gootz, *R.* See Helferich, *B.*
- Goralczyk, *R.* See Meyer, *Julius*.

- Goralevitch, D. K., preparation of U_3O_8 as a standard of radio-activity, A., 1140.
 higher oxy-compounds of group VIII elements. II. Nickel compounds, A., 1141, 1540.
- Gorbach, G., use of the Zeiss immersion refractometer for measurement of invertase action, A., 499.
 colouring matter of *Bacillus prodigiosus*. I. Formation, A., 1219.
- Gorbach, G., and Lerch, K., influence of ultra-violet light on invertase. I. Ultra-violet spectra of invertase of varying degree of purity, A., 640.
- Gorbatshev, S. V., starch paste, A., 852, 1248.
- Gorbatshev, S. V., and Kasatkina, I. A., determination of iodides in presence of other halides, A., 1143.
- Gordon, C. See Hogben, L.
- Gordon, F. A. See Pokrowski, G. I.
- Gordon, J., [boiler]-water softening, B., 221.
- Gordon, John, action of certain dyes on the bactericidal activity of normal serum and on the hemolytic complement, A., 802.
- Gordon, John. See also Armitage, G.
- Gordon & Co., Ltd., J., [controlling the combustion of fuel in boiler] furnaces, (P.), B., 1097.
- Gore, H. C. See Józsa, S.
- Gorgeot, H. P. J. C., and Société d'Exploitation d'Usines Métallurgiques, process and apparatus for evaporation purposes, (P.), B., 41.
- Gorham, W. G. See Dunlop Rubber Co., Ltd., and McKay, R. F.
- Gorini, C., acido-proteolytic enzymes in the tanning industry, B., 782.
- Gorlich, F. See Koidl, T.
- Goroshko, E. A. See Trefiliev, I. A.
- Górski, F., accuracy of the bubble-counting method for experiments on photosynthesis, A., 1386.
- Górski, I. M. See Zeide, O. A.
- Górski, M., physiological reaction of salts, A., 1314.
- Górski, M., and Krotowiczówna, J., [fertilising] effect of superphosphate, nitrophos, and phosphorite compared with that of superphosphate and Thomas slag, B., 386.
- Gortikov, V. M. See Shukov, I. I.
- Gortner, R. A. See Aronovsky, S. I., Martin, W. M., and Pascoe, T. A.
- Gorton, J. See Sandqvist, H.
- Gosé, J. B., toxicity of sodium salt of tetraiodophenolphthalein, A., 954.
- Goskar, T. A., manufacture of decolorising or activated carbon, (P.), B., 851.
- Gosman, B., polarographic studies with the dropping mercury cathode. X. Reduction of sulphurous acid, A., 706.
- Goss, B. C., and Lake Erie Chemical Co., gas-generating chemical [lachrymators, etc.], (P.), B., 809.
- Goss, H., and Schmidt, C. L. A., calcium and phosphorus metabolism of rats during pregnancy and lactation; influence of reaction of diet, A., 808.
- Goss, M. J. See Lynch, D. F. J.
- Gosselin, A., variation of physical constants in homologous series, A., 1243.
- Gosselin, A. H. See Claude, G.
- Gossner, B., crystal structure of glaserite and potassium sulphate, A., 279.
 structure of zunyite, A., 280.
- Gossner, B., and Arm, M., chemical and X-ray study of substances and crystals of complex structures, A., 1352.
- Gossner, B., and Bäuerlein, T., hydrated sulphates containing three metals, A., 1386.
- Gossner, B., and Brückl, K., scapolite group, A., 1100.
- Gossner, B., and Musgnug, F., lattice constants of epididymite, A., 21.
 lattice constants of wollastonite, A., 140.
 comparative X-ray examination of silicates, A., 140.
 davynite and its relation to hauynite and cancrinite, A., 1352.
 crystallographic relations between potassium and ammonium dichromates, A., 1352.
 kaliophillite, A., 1352.
- Gossner, B., and Spielberger, F., chemical and X-ray study of silicates; hornblende group, A., 1352.
- Gossner, G., and Kraus, O., eudidymite and epididymite, A., 528.
- Goswami, M. N., stability of unsaturated compounds in presence of catalysts, A., 1433.
- Goswami, M. N., and Ganguli, P. N., reduction of mercuric chloride by glycerol, A., 177.
- Goto, K., and Inaba, R., sinomenine and disinomenine. XV. Reduction of bromosinomenine with nascent hydrogen, A., 795.
- Goto, K., and Kitasato, Z., constitution of sinactine (*l*-tetrahydrocypiberberine), A., 935.
 constitution of ψ -morphine and dithebanone, A., 1050.
- Goto, K., and Mitsui, S., sinomenine and disinomenine. XIX. Reduction of sinomenine and dihydrosinomenine with sodium amalgam, A., 1600.
- Goto, K., and Nambo, T., sinomenine and disinomenine. XIV. Bromosinomeninone, A., 626.
 sinomenine and disinomenine. XVI. *iso*Bromosinomenine (or bromosinomenine), A., 1049.
- Goto, K., Nambo, T., and Inaba, R., sinomenine and disinomenine. XVII. Methylsinomeninone, A., 1300.
- Goto, K., and Sudzuki, H., sinomenine and disinomenine. IX. Acetumine and sinactine, A., 98.
 sinomenine and disinomenine. XI. Position of the double linking in sinomenine, A., 230.
 sinomenine and disinomenine. XII. Sinomenine hydrate, A., 353.
- Gotta, A. See Sieverts, A.
- Gottesmann, U. See Breusing, K.
- Gottfried, A., [use of the] formol titration in examination of honey, B., 34.
- Gottfried, C., minerals from the Adamello Mts. [Trentino], A., 734.
- Gottlieb, P. See Losey, A.
- Gottlieb, S., corrections for standard solutions of inconvenient concentrations, A., 879.
 hydrogen-ion concentration [in water works' corrosion problems], B., 616.
- Gottmacher, A., and Litvak, I. I., importance of carbohydrates in the development of avitaminosis-B, A., 963.
- Gottschalk, A., utilisation of substitute carbohydrates by the diabetic organism, A., 241.
- Gottschalk, P. G. See Kuehl, Hugo.
- Goubeau, J. See Birckenbach, L.
- Goudet, A., conversion of methane into petroleum-like hydrocarbons, (P.), B., 232.
- Goudielock, W. B. O'B. See Machin, W., and Vickers-Armstrongs, Ltd.
- Goudsmit, S., is there an isotope displacement in the spectrum of cadmium? A., 7.
 extension of Houston's and Slater's multiplet relations, A., 971.
- Goudsmit, S., and Bacher, R. F., separations in hyperfine structure, A., 265.
- Goudsmit, S., and Young, L. A., nuclear moment of lithium, A., 510.
- Gough, G. A. C., and King, Harold, trypanocidal action and chemical constitution. IX. Aromatic acids containing an amide group, A., 796.
- Gough, G. A. C. See also Wieland, H.
- Gough, H. J., and Cox, H. L., behaviour of a single crystal of antimony subjected to alternating torsional stresses, A., 845.
 behaviour of single crystals of zinc subjected to alternating torsional stresses, A., 845.
- Gould, A. A. See Cowper-Coles, S. O.
- Gould, B., and Gem Appliances, Inc., electric mixer, (P.), B., 537.
- Gould, C. E., and Hampton, W. M., thermal endurance of glass, B., 989.
- Gould, H. W., and Ray, K. W., effects of silicon on the properties of brass. I. and II., B., 911, 992.
- Gould, S. P. See Whittier, E. O.
- Goulding, F. A., and Game, S. F., [exhausting] thermionic valves, (P.), B., 825.
- Gourvish, C. M. See Anglo-Amer. Chem. Co., Ltd.
- Goutal, E., and Hennebutte, H., carbonisation of briquetted fuel, (P.), B., 405.
- Gouzon, B. See Bierry, H.
- Govaert, F., nitration of *o*-toluidine, A., 204.
 nitration of *o*-fluorobenzoic acid, A., 771.
- Governor & Co. of Adventurers of England Trading into Hudson's Bay, and Townsend, C., freezing and storing fish, (P.), B., 439.
- Govett, E. See Govett, Ltd.
- Govett, Ltd., and Govett, E., treatment of bromine and iodine, (P.), B., 1151.
- Gowan, E. H., effect of ozone on the temperature of the upper atmosphere. II., A., 1154.

- Goy, *S.*, significance of ionic density in the regular and quantitative relationships between degree of acidity, adsorptive capacity, and buffer power of soils, and a comprehensive method for determining the latter factor, B., 257.
- Goy, *S.*, Müller, *P.*, and Roos, *O.*, indicators used in determining the exchange acids (easily soluble acids in soil) by Daikuhara's method, B., 254.
- relationships of the different acids and bases in soil to the electrometric titration, B., 734.
- effect and velocity of action of calcium carbonate in the field on the indexes of acidity in soils, B., 833.
- proportions of easily and difficultly mobilisable acid within the zone of exchange acidity in soils, and the bearing of buffer values on this, B., 1123.
- Goyer, (*Miss*) *M.* See Duffendack, *O. S.*
- Goyle, *D. N.* See Yajnik, *N. A.*
- Gózyon, *L.*, and Hoffenreich, *F.*, serum hæmolytins, A., 802.
- Grabar, *P.* See Blum, *L.*
- Gračanin, *M.*, influence of sodium nitrate and ammonium sulphate on the intake of potash and phosphate [by plants] from the soil, B., 877.
- "negative values" in Neubauer-Schneider tests of soils, B., 1123.
- Gračanin, *M.*, and Némec, *A.*, effect of lime on the root solubility of phosphates and potash in arable soils, B., 580.
- Gračanin, *M.* See also Némec, *A.*
- Grace, *N. S.* See Thorvaldson, *T.*
- Grace, *V. F.*, combination bubble cap and downflow, (P.), B., 492.
- Gradwohl, *M.*, influence of reaction on the oxidation of amino-acids by animal charcoal, A., 688.
- Grady, *L. D., jun.* See Haslam, *G. S.*
- Graefe, *E.*, Russian asphalt, B., 228.
- Graefe, *E.*, and Fleck, asphalt emulsions: their nature, manufacture, and practical application, B., 542.
- Grähling, *K.* See Magnus, *A.*
- Gräntzdörffler, *A.*, electrodes for causing the separation of crystals from sugar solutions, (P.), B., 260.
- Graesser-Monsanto Chemical Works, Ltd., and Carswell, *T. S.*, separation of alkoxyisoeugenol from alkoxyisochavibetol and production of isoeugenol from the separated compounds, (P.), B., 532.
- Graesser-Monsanto Chemical Works, Ltd., and Hudson, *D. P.*, separation, isolation, and purification of aromatic hydroxy-aldehydes, (P.), B., 95.
- Graetz, *E.* See Krüger, *P.*
- Graf, *E. H.*, and Lusifer Products Co., manufacture of steel, (P.), B., 1077*.
- Graf, *F.*, increasing the yield in alcoholic preparations [of drugs], B., 484.
- Graf, *L.* See Dehlinger, *U.*, and Glocker, *R.*
- Graf, *O.*, compression and bending strengths, contraction and expansion, resistance to abrasion, permeability to water, and resistance to chemical attack of cement mortars and concrete with varying grain size and water content of the mortars, B., 60.
- Graf & Co., A.-G., *R.*, after-treatment of sterilised catgut for surgical use, (P.), B., 1091.
- Grafe, *K.* See Bergmann, *M.*
- Graham, *D. P.*, promoter action in reactions of oxidation concomitant with the catalytic decomposition of hydrogen peroxide. I. Oxidation of hydrazine, A., 1257.
- Graham, *E. A.* See Elman, *R.*
- Graham, *F. V.* See Mathers, *F. C.*
- Graham, *G. B.* See Steacie, *E. W. R.*
- Graham, *J.* See Tankard, *J.*
- Graham, *J. W.*, air-conditioning in the [paper] press room, B., 588.
- Graham, *R. F.*, apparatus for pasteurising beer and other liquids, (P.), B., 738.
- Graham, *S. B.* See Clemo, *G. B.*
- Graham-Enock, *A.*, and Graham-Enock Manufacturing Co., Ltd., pasteurisation or sterilisation processes and plants, (P.), B., 965.
- Graham-Enock Manufacturing Co., Ltd. See Graham-Enock, *A.*
- Graichen, *M. G.*, preservation and packing of rubber goods, (P.), B., 522.
- Gram, *T.* See Söderlund, *O.*
- Gramajo, *G. M.* See Esquivel, *R. B.*
- Grampolov, *A. I.* See Goldstein, *H.*
- Grange, *L. I.*, classification of soils of Rotorua country, B., 340.
- Granskaja, *T. A.* See Dumanski, *A. V.*
- Grant, *A. G.*, carburetting process in water-gas manufacture, B., 129.
- Grant, *F. B.* See Imperial Chem. Industries, Ltd.
- Grant, *H. C., jun.* See Kidde & Co., Inc., IV.
- Grant, *J.*, ruler for the interconversion of *E.M.F.* readings and p_H values in the electrometric measurement of hydrogen-ion concentration, A., 1396.
- Grant, *L. E.*, and Grant, *V. E.*, variations in thickness of metal [electro]-deposits. I., B., 1114.
- Grant, *V. E.* See Grant, *L. E.*
- Granular Iron Co., production of steel, (P.), B., 197.
- Granular Iron Co. See also Hornsey, *J. W.*, and Smith, *J. K.*
- Granzmüller, *J.* See Eckert, *A.*
- Grard, *J.*, reactions of propargyl acetal, A., 60.
- bromomalonic dialdehyde, A., 324.
- $\gamma\gamma$ -diethoxy- Δ^4 -propinone and bromomalondialdehyde, A., 889.
- Grard, *J.* See also Kirmann, *A.*
- Grasselli Chemical Co., and Alvord, *E. B.*, fungicide, (P.), B., 1166.
- Grasselli Chemical Co., and Corson, *H. P.*, inhibitor [for steel pickling], (P.), B., 426.
- Grasselli Chemical Co., and Feagley, *C. C.*, production of basic aluminium sulphate, (P.), B., 418.
- Grasselli Chemical Co., and Howard, *H.*, preparation of colloidal sulphur, (P.), B., 1110.
- production of sodium thiosulphate, (P.), B., 1150.
- Grasselli Chemical Co., and Taylor, *E. A.*, depilation of hides, (P.), B., 523.
- Grasselli Dyestuff Corporation, and Clingenstein, *H.*, green trisazo-dyes for cotton, (P.), B., 234*.
- Grasselli Dyestuff Corporation, and Haller, *J.*, indigoid dyes, (P.), B., 234*.
- Grasselli Dyestuff Corporation, Hersberg, *W.*, and Ohlendorf, *H.*, azo-dyes [for wool] from hydroxynaphthazine derivatives, (P.), B., 9.
- Grasselli Dyestuff Corporation, Hoffa, *E.*, and Heyna, *H.*, dyes of the thioindigo series, (P.), B., 10.
- Grasselli Dyestuff Corporation, Kunz, *M. A.*, and Köberle, *K.*, vat dyes [halogenated *m*-benzodanthrones], (P.), B., 9.
- Grasselli Dyestuff Corporation, Laska, *L.*, Krecke, *F.*, and Weber, *F.*, azo-dyes, (P.), B., 9.
- Grasselli Dyestuff Corporation, Lüttringhaus, *A.*, Neresheimer, *H.*, and Wolff, *Hugo*, vat dyes of the isodibenzanthrone series, (P.), B., 9.
- Grasselli Dyestuff Corporation, Stein, *Berthold*, Trautner, *W.*, and Berliner, *R.*, green vat dyes [of the dibenzanthrone series], (P.), B., 9.
- Grasselli Dyestuff Corporation, Thiess, *K.*, Müller, *C. J.*, Schirmacher, *K.*, and Zahn, *K.*, vat dyes [of the thioindigoid series], (P.), B., 10.
- Grasselli Dyestuff Corporation, and Wolff, *H.*, vat dyes by condensation of 1-(4-benzanthronylamino)anthraquinones, (P.), B., 9.
- Grasser, *G.*, tanning materials of Central Japan, B., 251.
- raw hide, B., 252.
- Grassmann, *W.*, Dyckerhoff, *H.*, and Eibeler, *H.*, enzymic fission of glutathione. I., A., 1067.
- Grassmann, *W.*, Dyckerhoff, *H.*, and Schoenebeck, *O. von*, natural activators and inhibitors of proteolytic enzymes, A., 500.
- Grassmann, *W.*, and Heyde, *W.*, enzymes of leucocytes. IV. Peptidases of blood-serum, A., 629.
- Grassmann, *W.*, and Klenk, *L.*, plant proteases. XV. Identity of animal and plant dipeptidase, A., 249.
- Grassner, *F.* See I. G. Farbenind. A.-G., and Lucas, *R.*
- Grasso, *H. A. M.* See N.V. Grasso's Machinefabrieken.
- Gratama, *E. J.* See Friedländer, *D.*
- Gratz, *L. O.* See Schultz, *E. S.*
- Grau, *R.*, and Roth, *W. A.*, physical chemistry of sulphur trioxide, A., 678.
- heat of dilution of sulphuric acid, A., 703.
- Grau, *R.* See also Roth, *W. A.*
- Graulich, *W.*, analysis of the platinum metals, B., 563.
- Gravell, *J. H.*, and American Chemical Paint Co., selectively controlling metal-pickling baths, (P.), B., 150.
- foaming paint [from metals], (P.), B., 571.
- foam-producing process and material for acid metal-cleaning baths, (P.), B., 618*.

- Gravestein, *H.*, determination of rubidium and caesium with potassium chloroplatinate solution; specific reaction for caesium, *A.*, 1543.
- Gray, *C. H.*, impregnation of textile filaments with rubber, (*P.*), *B.*, 504.
- Gray, *F. W.*, and Farquharson, *J.*, diamagnetism and sub-molecular structure, *A.*, 1101.
- Gray, *H.*, and Goodrich Co., *B. F.*, manufacture of [thermoplastic] rubber composition, (*P.*), *B.*, 294*.
- Gray, *H. L.* See Titus, *R. N.*
- Gray, *H. LeB.*, Staud, *C. J.*, and Fuess, *J. T.*, relationship between α -cellulose content and potassium hydroxide solubility of certain degraded celluloses, *B.*, 1021.
- Gray, *H. LeB.* See also Murray, *T. F., jun.*, and Webber, *C. S.*
- Gray, *J. A.*, and Zinn, *W. H.*, new phenomena in X-ray scattering, *A.*, 833.
- Gray, *L. H.*, scattering of hard γ -rays. *I.*, *A.*, 1086.
- Gray, *L. T. M.*, and Style, *D. W. G.*, absorption of light by chlorine, bromine, and their gaseous mixtures, *A.*, 510.
- Gray, *P. H. H.* See Thornton, *H. G.*
- Gray, *S. H.*, blood-cholesterol following repeated administrations of chloroform, paraldehyde, and urethane, *A.*, 1215.
- Gray, *T. T.*, and Gray Processes Corporation, purification of hydrocarbon compounds; process and apparatus for treating hydrocarbons, (*P.*), *B.*, 650*.
- treatment of fluids with solid substances, (*P.*), *B.*, 888.
- Gray Processes Corporation. See Brooks, *B. T.*, Gray, *T. T.*, and Miller, *W.*
- Grayson, *J. H.*, thermostats, (*P.*), *B.*, 591.
- Graziani, *G.*, titrimetric determination of alkaloids in biology, *A.*, 1224.
- Greager, *O. H.* See Bartell, *F. E.*
- Greaves, *J. D.*, microflora of leached alkali soils. *I.* Synthetic alkali soil, *B.*, 72.
- microflora of leached alkali soils. *II.* Leached sodium chloride soil, *B.*, 253.
- Grebel, *A.*, variation in the temperature of spontaneous ignition of liquid fuels containing added substances, as a function of the composition of the mixture, *B.*, 45.
- Gredt, *P.*, smelting of oolitic granules and similar finely-divided ores or slimes obtained from minette, (*P.*), *B.*, 616.
- Gredy, (*Mlle.*) *V.* See Bourguet, *M.*
- Greeley, *A. H.* See Safford, *C. E.*
- Green, *A.*, production of [compound] yarns or threads of fibrous substances, (*P.*), *B.*, 457.
- Green, *A. T.*, differences between the interior and exterior portions of fireclay products consequent on the firing operation, *B.*, 989.
- Green, *A. T.*, and Dale, *A. J.*, fuel utilisation in the ceramic industries, *B.*, 13.
- Green, *B. E.* See Huron Industries, Inc.
- Green, *E. W.*, and Unthank, *G. R.*, pulverising and similar mills, (*P.*), *B.*, 400.
- Green, *F. C.*, McEnderfer, *M. E.*, Orth, *O. S.*, and Burge, *W. E.*, effect of summer and winter temperatures on the catalase of pine-needles; reply to criticism, *A.*, 382.
- Green, *F. C.* See also Verda, *D. J.*
- Green, *G.*, conduction of heat, *B.*, 643.
- Green, *H.* See Hatfield, *W. H.*
- Green, *J. B.*, rod for use in arc-welding or cutting, (*P.*), *B.*, 108.
- incomplete Paschen-Back effect, *A.*, 1225.
- Green, *J. R.* See Johnson, *A. H.*
- Green, *L. W.* See Deripe, *F. van.*
- Green, *M.*, Darsey, *V. M.*, and Parker Rust-Proof Co., production of a phosphate coating on metal, (*P.*), *B.*, 1034.
- Green, *M. C.*, effect of small angle scattering on the electron absorption coefficient, *A.*, 1231.
- Green, *R. H. M.*, apparatus for preparation of Indian ink, etc., (*P.*), *B.*, 781.
- Green, *S. J.*, catalytic reactions at high pressures, *A.*, 867.
- Green, *S. J.* See also Brit. Celanese, Ltd.
- Green, *T. C.* See Lewis, *I. M.*
- Greenbank, *G. R.*, and Holm, *G. E.*, photochemical method for measuring susceptibility of fats and oils to oxidation, *B.*, 248.
- Greenbaum, *F. R.*, mercuration of plithaleins in neutral solution with mercuric chloride, *A.*, 1458.
- Greenberg, *D. M.*, and Gunther, *L.*, determination of diffusible and non-diffusible serum-calcium, *A.*, 361.
- diffusible calcium of the blood-serum in allergic diseases, *A.*, 1206;
- Greenberg, *D. M.* See also Burk, *N. F.*, and Gunther, *L.*
- Greenberg, *I. W.* See Bogert, *M. T.*
- Greenburg, *H.* See Whitby, *G. S.*
- Greene, *C. H.* See Snell, *A. M.*
- Greene, *F. C.*, and Hertel, *O. H.*, muffle furnace, (*P.*), *B.*, 86.
- Greene, *F. C.*, Laucks, *I. F.*, and Old Ben Coal Corporation, apparatus for extracting values from coal and like materials, (*P.*), *B.*, 91.
- Greene, *H. L.* See Molybdenum Corp. of America.
- Greene, *J. A.*, and Bindphast Products, Ltd., composite fuel, (*P.*), *B.*, 311.
- cementitious compositions for manufacture of articles impervious to fluids, (*P.*), *B.*, 420.
- Greene, *J. A.* See also Alexander, *H.*, and Bindphast Products, Ltd.
- Greengard, *H.* See Hurd, *C. D.*
- Greenidge, *R. M.* See Given, *F. J.*
- Greenleaf, *G. A.* See Nelson, *E. K.*
- Greenspan, *L.* See Fink, *C. G.*
- Greenstreet, *C. J.*, and Gasoline Corporation, treatment of hydrocarbon oils, (*P.*), *B.*, 407.
- Greenwald, *H. P.* See Rice, *G. S.*
- Greenwald, *H. M.*, and Pennell, *S.*, carbohydrate metabolism of the normal new-born infant. *I.*, *A.*, 1061.
- carbohydrate metabolism of the normal new-born infant. *II.* Effect on the concentration of blood-sugar of feeding various sugars, *A.*, 1312.
- Greenwald, *I.*, metabolism in pneumonia. *I.* Excretion and determination of organic acid, *A.*, 366.
- Jaffé's reaction for creatinine. *V.* Compound of picric acid with two mols. of creatinine; its combinations with acid and alkali, *A.*, 755.
- nature of the sugar in pentosuria, *A.*, 1311.
- Greenwald, *I.*, and Levy, *I.*, lipin-free blood-serum; apparatus for extraction at low temperatures, *A.*, 1055.
- Greenwald, *J. A.* See Briggs, *T. R.*
- Greenwood, *J. N.*, and Roennfeldt, *A. J.*, corrosion of rabbles in zinc concentrate roasting furnaces, *B.*, 866.
- Greenwood, *M. L.* See Okey, *R.*
- Greer, *C. M.*, and Adams, *R.*, preparation and bactericidal properties of certain penta-, hepta-, and nona-decoic acids. *XIX.*, *A.*, 1020.
- Greg, *H. P.*, means for production of variegated or parti-coloured yarns [by weaving], (*P.*), *B.*, 369.
- Gregorich, *J.*, and Dorr Co., feed re-pulper for sedimentation apparatus, (*P.*), *B.*, 269.
- Gregorini, *B.* See Corbellini, *A.*
- Gregory, *C. H.* See Swift, *E. H.*
- Gregory, *D. V.*, Rassweiler, *G. M.*, and Lampert, *K. C.*, modified plastometer for industrial use, *B.*, 589.
- Gregory, *J.*, absorption, transmission, and reflection of radiant heat by fabrics; transfer of moisture through fabrics, *B.*, 609.
- Gregory, *L. W.* See Brit. Celanese, Ltd.
- Greinacher, *H.*, ratio of the masses of the proton and electron, *A.*, 395.
- Greiner, *C.*, production of solid glue and gelatin in drop- or lens-shape, (*P.*), *B.*, 294*.
- Greiner, *E. S.* See Stoughton, *B.*
- Greiner, *F.*, production of cast iron of any desired structure, (*P.*), *B.*, 334*.
- Greiner, *W.*, manufacture of rapidly maturing beers, (*P.*), *B.*, 261.
- Greisheimer, *E. M.*, Johnson, *O. H.*, and Ryan, *M.*, relationship between serum-calcium and age, *A.*, 244.
- Greiss, *M.* See Rojahn, *C. A.*
- Greist, *K.*, determination of acids in silage by Wiegner's method, *B.*, 880.
- Gremli, *E.*, chlorination of hydrocarbons, (*P.*), *B.*, 50.
- Gremmer, *W.*, series in the xenon arc spectrum, *A.*, 125.
- Grendel, *F.*, determination of protein in blood-serum, *A.*, 359.
- determination of phosphate in blood, *A.*, 944.
- copper content of certain foods, *B.*, 1089.
- Grenet, *G.*, magnetic properties of rocks, *A.*, 673.
- Grenge, *R.*, testing of road-making materials, using small quantities, *B.*, 864.
- Grenquist, *E. A.*, structural changes during the processing of rubber, *B.*, 828.
- Gressmann, *M. L.* See Fajans, *K.*
- Gretschnev, *P.*, tryptophan content of the adrenals, *A.*, 1464.
- Grettie, *D. P.*, and King, *C. G.*, vitamin-C concentrates from lemon juice, *A.*, 119.

- Greulich, E., hardening of some metals [steel and Monel metal] by cold-rolling, B., 1070.
- Greulich, E., and Bedeschi, G., technological and metallographic properties of a high chromium-nickel steel, B., 194.
- Greune, H. See Gen. Aniline Works, Inc.
- Grewe, E., and Child, A. M., effect of acid potassium tartrate as an ingredient in angel cake, B., 788.
- Grewe, E. See also Holm, G. E.
- Grewe, H., determination of the calorific value of coke-oven gas with the Junker calorimeter, B., 1053.
- Grewe, H. See also Royen, H. J. van.
- Gribojedov, N., apparatus for compressing gases, (P.), B., 1136.
- Grice, C. S. W. See Katz, S. H.
- Griebel, C., pollen analysis of honey. I, B., 740.
- Griebel, C., and Casal, P., constituents of cacao husk, B., 481.
- Griebel, C., and Weiss, F., pectin [in the preparation of jellies], B., 80.
- Griesbach, W., utilisation of sugars in muscle, A., 810.
- degradation of fatty acids in surviving dog's muscle, A., 810.
- Griesenauer, G. J., substitute for the compression test of concrete, B., 104.
- Griessbach, R. See I. G. Farbenind. A.-G.
- Griffel, W., fat and cholesterol contents of serum from rabbits kept in air at low pressures, A., 1200.
- Griffin, E. P., and Buckley, W. A., ["sac"-type] electric batteries, (P.), B., 108.
- Griffin, J. H. See Pilkington Bros., Ltd.
- Griffin, P. W., burners for fuel in pulverulent condition, (P.), B., 600.
- Griffin Wheel Co. See Evans, G. S.
- Griffith, G. See Woodman, H. E.
- Griffith, P. W. See Barsky, G.
- Griffith, W. H., benzoyleated amino-acids in the animal organism. V. Synthesis of glycine and of hippuric acid in rats, A., 495.
- Griffiths, E., furnaces for annealing metal sheets by a continuous process, (P.), B., 1116.
- Griffiths, E., and Griffiths, E. E., treatment [annealing] of metal sheets, (P.), B., 331.
- Griffiths, E. See also Awbery, J. H.
- Griffiths, E. E. See Griffiths, E.
- Griffiths, H. E., preventing or minimising the obscuration of windows and other transparent surfaces by moisture, (P.), B., 1029.
- Griffiths, W. J., and Kaye, G., bile pigments in relation to the van den Bergh reaction, A., 1466.
- Griffon, H., and Bernard, A., micro-determination of potassium in [potable] waters, B., 1132.
- Griffon, H. See also Meesemaeker, R.
- Grigaut, A., Bouteux, A., and Codounis, A., determination of the proteins of blood-serum by alcoholic precipitation, A., 630.
- Grigaut, A. See also Achar, C.
- Grigg, F. J. T., distribution of arsenic in the body in a fatal case of poisoning by hydrogen arsenide, A., 110.
- Grigg, F. J. T., and Rogers, M. N., radioactivity and chemical composition of some New Zealand thermal waters, A., 1014.
- Grigg, P. P. See Chapman, D. L.
- Grignard, V., and Blanchon, H., enolisation of ketones, A., 67.
- Grignard, V., and Cologne, J., condensation of ketones, A., 1022.
- Grignard, V., and Dœuvre, J., determination of the constitution of citronellol and rhodinol by the quantitative ozonisation method, A., 59.
- transformation of *l*-isopulegol into *d*-citronellal, A., 893.
- Grignard, V., and Iliesco, N., condensation of isobutaldehyde, A., 454.
- Grigoresco, D. See Marinresco, G.
- Grigoriev, A. T., palladium-antimony alloys, A., 148.
- gold-antimony alloys, A., 148.
- Grigoriev, N. See Botschkarev, P.
- Grillet, N. B. See Soc. des Usines Chim. Rhône-Poulenc.
- Grimbert, L., and Fleury, P., chemical composition of "histamine" gastric juice of man, A., 238*.
- Grimes, M., two new species of bacteria belonging to the genus *Chromobacterium*, A., 959.
- Grimes, M., Kennelly, V. C. E., and Cummins, H. A., fungi found in butter, B., 1130.
- Grimm, H., drying of electrolytic pastes in pocket-lamp dry batteries, B., 823.
- Grimm, H. G., and Wolf, H., discontinuous change of properties in series of chemical compounds, A., 137.
- Grimmel, H. See Gen. Aniline Works, Inc.
- Grimmer, W., and Arlart, C., souring of milk. II., A., 1204.
- Grimmer, W., and Paape, W., souring of milk. I., A., 1204.
- Grimmer, W., and Rauschnig, S., micro-organisms. V. Biochemistry of *Paraplectrum fatidum*, A., 115.
- Grimshaw, C. H., coloured bituminous compositions, (P.), B., 104.
- Grimshaw, J. A. See Brownsey, P.
- Grimsley, L. B. See Muskat, I. E.
- Grindley, J., and Bury, C. R., electrical conductivity of butyric acid-water mixtures, A., 1106.
- Grindrod, G., manufacture of food products, (P.), B., 530.
- Grinfeld, R., Grimm's law and the ionisation potentials of water and ammonia molecules, A., 522.
- Grinten, F. van der, development of positive diazo[-type] prints, (P.), B., 303.
- apparatus and developer for developing [diazo-type] photographic prints, (P.), B., 840.
- preparation of photographic diazo-types, (P.), B., 1047.
- Grippa, A., organic compounds of quadrivalent vanadium, A., 1179.
- detection of arsenic in medicinal substances and comparison of the sensitiveness of Bettendorff's and Bougault's reagents, B., 1045.
- Grippa, A. See also Bargellini, G.
- Grishkevitch-Trochimovski, E., and Sporyński, A., diethylarsine, A., 330.
- Griscom-Russell Co., and Ris, K. B., heat exchangers, (P.), B., 690.
- Griscom-Russell Co. See also Jones, R. C.
- Griswold, F. L. See King, C. V.
- Groák, B. See Farkas, G. von.
- Grob, L. R., rational manuring of hops with special reference to phosphates, B., 73.
- Grochowski, M. See Swientoslawski, W.
- Groeck, H. See Groeck Wasserveredlung Ges.m.b.H.
- Groeck Wasserveredlung Ges.m.b.H., and Groeck, H., prevention of incrustation and corrosion in water-pipes, etc., (P.), B., 913.
- preventing incrustation by and improving the flavour of water, (P.), B., 1132.
- Groen, J. See Herbert, F. K.
- Grønberg, P. N., pasteurising apparatus, (P.), B., 889.
- Gronning, A., filter for liquids, (P.), B., 591*.
- Grönvall, H., presence of citric acid in aqueous humour, A., 946.
- Grönwall, E. A. A., recovery of metals in electric furnaces, (P.), B., 333.
- Grönwall, E. A. A., and Nathorst, H. J. H., production of metals [iron] from ores, (P.), B., 1075.
- Groesbeck, E. C. See Epstein, S.
- Grogan, J. D., pressure die cast aluminium alloy test-pieces, B., 913.
- Grogan, J. D. See also Rosenhain, W.
- Groger, R. See Lindemann, H.
- Groggins, P. H., Friedel-Crafts reaction; diphenyl series. I. Preparation of 2,4'-phenylbenzoylbenzoic acid and derivatives. II. Preparation of 2-phenylanthraquinone and derivatives, A., 1186.
- Groggins, P. H., and Newton, H. P., Friedel-Crafts reactions, naphthalene series. I. Preparation of naphthantraquinone, B., 601.
- Gröh, J., and Hanák, M., spectrophotometric researches on the aldehyde fixation of the proteins and their hydrolysis products, also on the enolisation of the peptide linkings, A., 1460.
- Gröh, J., and Papp, S., validity of Beer's law for violet solutions of iodine, A., 1112.
- Gröh, J., and Takács, E., kinetics of the solvation of iodine and the sexatomic iodine molecule, A., 1250.
- Grohn, H., red lead, B., 622.
- Groll, E. See Hofmann, U.
- Groll, H. P. A., triorgano-thallium compounds; thallium triethyl and thallium triphenylmethyldiethyl, A., 1302.
- Groman, R. O., and Fuller-Lehigh Co., pulveriser mill, (P.), B., 745.
- Gronover, A., and Lederle, P., determination of lecithin-phosphoric acid in ice cream and its intermediates, B., 481.
- Gronow, H. E. von. See Tammann, G.
- Groocock, C. M., Ingold, C. K., and Jackson, A., mechanism of, and constitutional factors controlling, the hydrolysis of carbonylic esters. II. Hydrolytic stability maxima of some glyceric esters, A., 869.
- Groom, S. L., drying ovens, (P.), B., 644, 745, 885.

- Groombridge, *W. H.*, and Dickinson, Ltd., *A. J.*, manufacture of insecticides, (P.), B., 525*.
- Groot, *T. C.*, process and [hot-air] device for drying timber, (P.), B., 666.
- Gros-Lafond, *L. M. V.*, Lafond, *V. M. L.*, Lafond-Pansu, *E. M. V.*, and Banzet, *P.*, manufacture of artificial silk, (P.), B., 900.
- Gross, *E.*, change of wave-length of light due to elastic heat waves at scattering in liquids, A., 1237.
- splitting of spectral lines at scattering of light by liquids, A., 1345.
- splitting of the frequency of light scattered by liquids and the optical anisotropy of molecules, A., 1498.
- economic aspects of water purification, B., 1006.
- Gross, *E. G.* See Underhill, *F. P.*
- Gross, *F.*, change of resistance of thin bismuth plates in a magnetic field, A., 1354.
- Gross, *F.* See also Büssem, *W.*
- Gross, *H.* See Schmidt, *H.*, and Schultze, *H.*
- Gross, *J.* See Hess, *A. F.*
- Gross, *J. E.* See Associated Electrical Industries, Ltd.
- Gross, *O.*, corrosion at riveted and welded joints in fuel-technology practice, B., 698.
- Gross, *P.*, salting-out effect with dichloro-ethanes and -propanes, A., 150.
- salt action, A., 150.
- Gross, *P.*, and Goldstern, *A.*, optical measurement of electrolytic dissociation in very dilute ethyl-alcoholic solution, A., 992.
- Gross, *P.*, and Iser, *M.*, salting-out action. II., A., 989.
- Gross, *P.*, and Klinghoffer, *S. S.*, influence of alkali chlorides on the solubility of calcium iodate, A., 989.
- Gross, *P.*, and Schwarz, *Karl*, salting-out action. I., A., 989.
- Gross, *P.* See also Fuchs, *K.*, and Schwarz, *Karl*.
- Grosse, *A. von*, actinium problem and the at. wt. of protoactinium, A., 515.
- at. wt. of actinium-lead, the final product of the actinium disintegration series, A., 836.
- analytical chemistry of element 91, ekatantalum, and its difference from tantalum, A., 883.
- Grosse, *A. von*. See also Beuthe, *H.*
- Grossfeld, *J.*, method of determining the mol. wt. of higher saturated fatty acids and its application to the determination of lignoceric acid in mixtures containing peanut butter, B., 381.
- separation of solid and liquid fatty acids and detection of hardened fats in cacao butter, B., 466.
- fatty acids of high mol. wt. [arachidic and crucic acids] in linseed and soya-bean oils, B., 956.
- Grossfeld, *J.*, and Hollatz, *G.*, detection and determination of dextrans in food materials, B., 790.
- Grossfeld, *J.*, and Simmer, *A.*, separation and determination of the solid fatty acids in food fats, B., 790.
- Grossman, *H.* See Goldsmith, *B. B.*
- Grossmann, *M. A.*, Williams, *D.*, and Central Alloy Steel Corporation, [removal of nitrogen from] steel, (P.), B., 1033.
- Grossmann, *O. von*, analytical separation by ether extraction, A., 879.
- Grossmann, *P.*, hydrogen producer for intermittent working of contact chambers, (P.), B., 283.
- Grossmann, *P.* See also Soc. of Chem. Ind. in Basle.
- Grote, *E. R.*, pumps for obtaining high vacua, (P.), B., 1136.
- Gröte, *W.* See Edeleanu, *L.*
- Grotian, *W.*, intensity ratios of the forbidden O III lines in the spectra of the planetary nebulae and novae, A., 388.
- Grounds, *A.*, washing of coal on the Hoyois washer, B., 1051.
- Grove, *C.*, dissociation of monochloroacetic acid in aqueous solution, A., 698.
- Grove, *C.* See also Brønsted, *J. N.*
- Grove, *E. W.*, Olmsted, *W. H.*, and Koenig, *K.*, effect of diet and of catharsis on lower volatile fatty acids in faeces of normal men, A., 240.
- Grubb, *A. C.* See Binder, *J. L.*
- Grube, *G.*, electrodeposition of gold alloys, B., 1073.
- Grube, *G.*, and Lieberwirth, *F.*, inactivation of the surface of metals by diffusion. IV. Diffusion of molybdenum and iron in the solid state, A., 682.
- Grube, *O.*, rapid determination of iron in nickel[-plating] baths, B., 244.
- Grubenholzimprägnierung Ges.m.b.H., preservation of wood, (P.), B., 715.
- preservatives for wood, (P.), B., 903.
- Gruber, *H.*, behaviour of heat-stable alloys towards sulphur, and a new sulphur-resistant alloy, B., 1157.
- Gruber, *W.* See Wacker Ges. für Elektrochem. Ind. G.m.b.H., A.
- Grubitsch, *H.* See Jantsch, *G.*
- Grün, *R.*, resistance of concrete to chemical action; B., 241.
- trass and sand as additions to cement, B., 558.
- action of salts, acids, and organic substances on cement and concrete, B., 821.
- Grünbaum, (*Mlle.*) *H.*, new resonance series of selenium, A., 511.
- Grünbaum, *O.*, lead-bearing metal, (P.), B., 333.
- Grünberg, *A. A.*, and Faermann, *G. P.*, amines and amides of quadrivalent platinum as acids and bases, A., 1540.
- Grüss, *J.* See Nagel, *W.*
- Gruetter, *J. W.*, combustion [with the aid of catalysts], (P.), B., 314*.
- Grützbach, *B.*, influence of the construction of the malt kiln on the colour of the malt, B., 116.
- Grunbaum, *M.*, manufacture of cellular products [from pulp], (P.), B., 656.
- Grund, *E.*, influence of experimental conditions on results of pulp-strength tests, B., 655.
- Gründer, *A.* See Larsen, *L. M.*
- Grundmann, *W.*, behaviour of [wood] creosote at low temperatures, B., 648.
- Grundström, *B.*, and Hulthen, *E.*, pressure effects in the band spectrum of calcium hydride, A., 651.
- Grundy, *J. G.*, wool dyeing, with special reference to the hosiery and tweed trades, B., 761.
- Gruner, *J. W.*, structure of sulphides and sulpho-salts, A., 671.
- Grunewald, *M. E.*, cement composition, (P.), B., 665.
- Grunfeldt. See Ramart, (*Mme.*) *P.*
- Grunsky, *H.* See Krüger, *D.*
- Grupe, *W. F.*, production of electrolytically deposited gold in film or leaf form, (P.), B., 20, 954*.
- Gruzdeva, *N. M.* See Igarischev, *N. A.*
- Gruzewska, (*Mme.*) *Z.*, electrical conductivities of some polysaccharides as a function of time and of spontaneous precipitation, A., 704.
- Gruzewska, (*Mme.*) *Z.* See also Brocq-Rousseau.
- Grycz, *J.*, production of steel in hearth furnaces, (P.), B., 105.
- Grzycki, *S.* See Moraczewski, *W. von*.
- Guardiola, *J. L.* See Clavera, *J. M.*
- Gubelmann, *I.*, and Weiland, *H. J.*, fusion curve of the system α -naphthylamine- β -naphthylamine, A., 162.
- Gubelmann, *I.*, Weiland, *H. J.*, and Stallmann, *O.*, 2:4-dichloro-1-aminanthraquinone, B., 94.
- preparation of *o*-(*p*-sulphobenzoyl)benzoic acid derivatives and anthraquinone compounds derivable therefrom, (P.), B., 603.
- Gubser, *P.* See De Diesbach, *H.*
- Guédon, *A.* See Vayon, *G.*
- Guéguen, *E.* See Colin, *H.*
- Güldner, *W. A.*, notched-bar impact strength of some aluminium alloys, especially at low temperatures, B., 1072.
- Gülke, *R.*, polarisation of thallium vapour fluorescence, A., 16.
- Gülker, *F.*, preparation of hydrogen and absorption of carbon dioxide from gas mixtures, (P.), B., 418.
- Guempel, (*Mlle.*) *O.*, heterogeneous equilibria in mixtures of water, ether, and a metallic salt, A., 420.
- Guenther, *A.* See Hevesy, *G. von*.
- Günther, *F.* See I. G. Farbenind. A.-G.
- Günther, *G.*, is degreasing of raw bones with liquid solvents practicable? A comparison with oil-seed extraction, B., 1079.
- Günther, *H.* See Mayer, *F.*
- Günther, *P.*, Andreev, *K.*, and Ringbom, *A.*, reactions occurring in thermal decomposition of solid barium azide, A., 719.
- Günther, *P.*, Lepin, *L.*, and Andreev, *K.*, decomposition of solid barium azide under the influence of X-rays, A., 716.
- Günther, *P.*, and Perschke, *W.*, comparison of some physical constants of [sodium] thiocyanate, azide, and nitrite solutions, A., 411.
- Günther, *P.*, and Rosbaud, *P.*, [crystal structure of rubidium azide], A., 983.
- Günther, *P.* See also Bodenstein, *M.*, and Cronheim, *G.*
- Günther, *W.*, and Kleinicke, *T.*, soda recovery in the sulphate-pulp process, B., 608.
- Günther-Schulze, *A.*, impeded glow discharge, A., 512.
- measurements on the Langmuir dark space, A., 1079.
- electron emission by collision of positive ions at low gas pressures, A., 1082.

- Günther-Schulze, A., atomic nomenclature, A., 1495.
 Günther-Schulze, A., and Meyer, Konrad, cathode sputtering at very low gas pressures, A., 1087.
 Günther-Schulze, A., Müller, W. J., and Konopicky, K., anodic behaviour of aluminium, A., 165.
 Guérin, P., hydrocyanic acid content of *Lotus*, A., 260.
 hydrocyanic acid in vetches; its distribution in the various organs of the *Leguminosae-Papilionaceae* as a cyanogenetic glucoside, A., 507.
 Gueritte, A. T. J. See Mouchel & Partners, Ltd., L. G.
 Gürsching, M. See Trautz, M.
 Guertler, W., "improvement" or "age-hardening" of alloys, B., 562.
 Güttinger, P., hyperfine structure of the lithium π spectrum, A., 1487.
 Guggenheim, E. A., cells with liquid-liquid junctions, A., 707.
 laws of dilute solutions and of perfect solutions, A., 1120.
 conception of electrical *P.D.* between two phases. II., A., 1124.
 cells with liquid-liquid junctions. II. Thermodynamic significance and relationship to activity coefficients, A., 1125.
 Guggenheim, M., and Sullivan, J. D., acceleration of extraction of soluble copper from leached ores, B., 911.
 Guggenheim, M. M., Baker, G. R., Baker Perkins, Ltd., and Aneiens Établissements A. Savy Jeanjean & Cie. Société Anonyme, [coating machines for] confectionery, (P.), B., 638.
 Gugliamelli, L., and Franco, M. R., reduction of nitro-derivatives of diphenyl, A., 762.
 Gugliamelli, L., and Ruiz, C., application to analytical chemistry of certain derivatives of fluorene, A., 443.
 Gugliamelli, L., Ruiz, C., Chanussot, P., and Hermitte, E., possible relation between the affinity of aryl radicals and the decomposition of aryl iodide dichlorides. I. Zappi and Deulofeu's work on the decomposition of phenyl iodide dichloride, A., 758.
 Guha, K. D., Hilditch, T. P., and Lovern, J. A., composition of the mixed fatty acids present in the glycerides of cod-liver and certain other fish-liver oils, A., 803.
 Guha, P. C., and Saletore, S. R. A., formation of heterocyclic compounds from ethyl carboxy-thiocarbamate, A., 619*.
 Guha, P. C. See also Ghosh, T. N.
 Guhl, H., gas burners, (P.), B., 274, 979.
 Guichard, Clausmann, and Billon, variations in hardness of metals and alloys resulting from cold-working, B., 331.
 influence of initial state on variations in hardness resulting from cold-working of certain metals and alloys, B., 377.
 Guild, F. N., copper pitch ore, A., 570.
 Guillaume, A., migration of alkaloids during the germination of seeds and formation of seedlings: *Lupinus mutabilis*, A., 827.
 loss of alkaloids during desiccation of plants, B., 166.
 Guillaume, C. E., errors due to capillary in reading the mercury thermometer, A., 446.
 Guillaume, J., sugar refining, B., 211.
 Guillaumin, C. O., influence of some anticoagulants on the distribution between plasma and corpuscles of blood constituents. I. Migration of water and chlorine, A., 944.
 Guillemet, R., and Golaz, P., micro-determination of urea by Nicloux and Welter's method, A., 806.
 Guillemin, V., jun., and Zener, C., simple "eigenfunction" for the ground state of lithium-like atomic systems, A., 649.
 Guillery, P., dispersion of some organic liquids in the ultra-violet, A., 1094.
 Guillet, L., and Ballay, M., influence of recovery on the resistivity and resistance to shear of tempered silicon-aluminium alloys, A., 988.
 corrosion of cemented or nitrided steels, B., 61.
 influence of tempering on the resistivity and resistance to shear of aluminium-silicon alloys; resistivity of pure aluminium, B., 717.
 effect of thermal treatment on the resistivity and mechanical resistance of aluminium alloys containing up to 2.5% Si, B., 1113.
 Guillet, L., and Cournot, J., effect of heat-treatment on certain silver-zinc and silver-cadmium alloys, B., 463.
 cold-working and annealing of metals and alloys, B., 560.
 Guillet, L., Galibourg, J., and Ballay, M., thermal hardening of grey castings, B., 1070.
 Guiller, R., investigations [of the Shank's system for lixiviation and crystallisation of caliche, etc.], B., 11.
 Guillissen, J., and Union Chimique Belge, Société Anonyme, production of ammonium phosphates, (P.), B., 142.
 manufacture of alkaline-earth cyanamides, (P.), B., 418.
 dry distillation of vinasses under reduced pressure, (P.), B., 583*.
 recovery of nitrogen and acetone from vinasses, (P.), B., 926*.
 Guillot, M., non-electrolytic compound of polonium, A., 308.
 entrainment of polonium, as chloropoloniate, by ammonium chloroplumbate, A., 405.
 entrainment of polonium; insoluble derivatives thereof as colloidal centrifugable precipitates, A., 1012.
 Guillot, M. See also Chamie, (Mlle.) C., and Fournier, G.
 Guimarães, D., separation of uranium from zirconium, tantalum, niobium, titanium, iron, manganese, lead, tin, copper, nickel, and chromium, A., 566.
 process of degradation of the rocks of Alto Rio Branco, A., 570.
 hypersthenisation and its explanation, A., 1156.
 Guinot, H., improved manufacture of absolute alcohol, B., 527.
 industrial dehydration of alcohol: production of water-free alcohol for motor fuels, etc., B., 582.
 Guinot, H. M. See Ricard, E.
 Guipet, J. See Nobilleau, G.
 Guirini, C. See Traube, J.
 Guittonneau, G., Delaval, H., and Bejambes, M., lactic fermentation of certain sugars at 70°, A., 1219.
 Guittonneau, G., and Keilling, J., separation of two products of solubilisation of sulphur in a soil rich in organic matter, B., 876.
 Gukhman, L., cylinder oils from heavy bottoms, B., 130.
 Gukhman, L., and Goldberg, D., paraffin content of Baku crude oils, B., 595.
 Gulevitch, V., stereoisomerism of carnosine, A., 1597.
 Gulik, D. van, ultra-violet absorption spectrum of chlorophyll, A., 396.
 Gulinov, V. G., preparation of aminosulphosalicylic acid from nitrososalicylic acid, A., 340.
 nitrosation of salicylic acid by copper nitrite, A., 340.
 black chrome dye from aminodisulphobenzoic acid, B., 364.
 black, chromable disazo-dye derived from aminosulphosalicylic acid, B., 653.
 preparation of nitrosophenol and of indoles by means of aluminium nitrite, B., 895.
 Gulland, J. M., and Hopton, G. U., pellitorine, the pungent principle of *Anacyclus pyrethrum*, A., 328.
 Gulland, J. M., and Peters, R. A., reducing substances of pigeons' blood, A., 360.
 Gulland, J. M., Robinson, R., Scott, J., and Thornley, S., 6:7-dimethoxyisatin, 5:6-methylenedioxyisatin, and the nuclear degradation of 3:4-methylenedioxyquinoline, A., 219.
 Gullotta, S., compounds from the urine of persons suffering from *Amentia* and *Dementia praecox*, A., 634.
 Gumlich, W. See Wieland, H.
 Gump, W., Dehls, J. C., and Steiz, L., cellulose acetate [plastic] composition, (P.), B., 780.
 Gump, W., and Ernst, I., absorption of carbon monoxide by cuprous ammonium salts, B., 507.
 Gundermann, H., influence of strong electric fields on the dielectric constants of liquids, A., 1347.
 Gundersen, L. B., converting suspensions of solids into pieces [coherent masses], (P.), B., 491.
 Gunn, J. A., and Simonart, A. J. L., pharmacological actions of harmalol, A., 1315.
 Gunn, J. W. C. See Epstein, D.
 Gunther, E. R. See Drummond, J. C.
 Gunther, L., and Greenberg, D. M., diffusible calcium and proteins of the blood-serum in jaundice, A., 1058.
 diffusible calcium and proteins of the blood-serum in malignant diseases, A., 1206.
 Gunther, L. See also Althausen, T. L., and Greenberg, D. M.
 Gunther, P., Porger, J., and Rosbaud, P., crystal structure and sensitiveness to shock of rubidium and barium azides, A., 401.
 Gupta, D. N. S., dipole moment of some organic halides, A., 667.
 Gupta, J. M. D. See Brahmaehari, U. N.
 Gupta, S. C. S. See Rây, P. C.
 Gurevitch, E. See Dobryanski, A., and Kohn, M.
 Gurevitch, H. L. See Busse, S. A.
 Gurevitch, I. I. See Tschernikov.
 Gurevitch, V. G., determination of small concentrations of sulphur dioxide and hydrogen sulphide present together in air, A., 879.
 Gurfinkel, M. See Przylecki, S. J.

- Gurin, S. See Eddy, W. H., and Williams, R. R.
 Gurtner, G., production of cellulose from wood, (P.), B., 98.
 Gurvich, M. N., Dmitriev, G. A., Sass-Tisovski, B. A., and Stepanov, D. V., manufacture of bleaching powder, B., 903.
 Gurvich, V., and Kaminer, B., vacuum distillation of the typical Baku fuel oils, B., 130.
 Gusseff, W., electrolytic [perforation] treatment of metals, (P.), B., 1116.
 Gustafsson, E. G. T., production of metals in electric furnaces, (P.), B., 427*.
 Gustafsson, J. A., coating wood and other materials with a hard covering, (P.), B., 771.
 Gustus, E. L. See Jacobs, W. A.
 Guthier, A., and Schieferdecker, W., adsorption phenomena with the platinum metals, A., 150.
 Gutehoffnungshütte Oberhausen Akt.-Ges., freeing gas liquor from tar, (P.), B., 853.
 Guth, E., normal quadratic Zeeman effect, A., 3.
 Guth, E., and Sexl, T., indeterminacy of the energy of primary β -particles and induced H -particles, A., 659.
 Guthrie, J. D., iodometric determination of oxidase activity, A., 1473.
 Guthrie, J. M., and Philip, G. G., colorimetric method of determining the soft resins of hops, B., 1086.
 Gutman, A. B. See Foster, G. L.
 Gutner, M. See Taipale, K. A.
 Guttman, A., and Gille, F., manganese in cement clinker; constitution of cement, B., 14.
 Guttman, R. See Voss, W.
 Gutton, C., properties of ionised gases in high-frequency electromagnetic fields, A., 657.
 Gutton, H., dielectric properties of ionised gases and the high-frequency discharge, A., 398.
 Guye, C. E., and Archinard, (Mlle.) I., dynamics of amalgamation, A., 287.
 Guyer, E. M., mechanical properties of some rolled and polished glass, B., 1152.
 Guyer, J. A. See MacMullin, R. B.
 Guyot, A., and Fournier, M., general method for preparation of primary and secondary amines, A., 203, 595.
 Guyot, R., intestinal calculus of medicinal origin, A., 240.
 Guzmán, J., and Rancano, A., electro-analysis of copper without platinum electrodes, A., 183.
 Guzzi, A. See Devoto, G.
 Gwaladse, W. See Kostytshev, S.
 Gwan, O. S. See De Jong, H. G. B.
 Gyemant, A., [electrical] strength of paper for cables, B., 412.
 Gyles, T. B. See Nat. Processes, Ltd.
 Gyngell, E. S. See Clean Coal Co., Ltd.
 Györgyi, A. S., mechanism of biological oxidation and function of the suprarenal gland, A., 1812.
 Gytoku, K., lipases. IV. Organ-lipases and their inhibition by poisons, A., 499.
 Gytoku, K., and Terashima, S., lipases. V. Lipases and proteins. VI. Separation of lipase into two inactive constituents, A., 499.
 Gyr, J. See Soc. of Chem. Ind. in Basle.
 Gyro Process Co. See Weaver, J. B.
 Gyulai, Z. See Fesefeldt, H.

H.

- Haack, E. See Windaus, A.
 Haag, I. L. See Haag, V. W.
 Haag, J. R., Jones, J. S., Jones, I. R., and Brandt, P. M., physiological effect of rations restricted principally or solely to lucerne. I. Calcium, phosphorus, and nitrogen metabolism of dairy cattle, A., 636.
 Haag, V. W., Bigler, H. E., and Haag, I. L., anti-freeze compound, (P.), B., 398.
 Haagen, E. See Erdmann, R.
 Haake, E., pharmacological action of fresh defibrinated blood. III. Action of the toxic substance on surviving organs, A., 811.
 Haakh, H., and Subal, H., treatment of felts made from animal hairs, (P.), B., 281*.
 Haam, E., and Stöhr, R., phosphorus content of the blood of hens inoculated with infectious hen (Rous) sarcoma, A., 948.
 Haar, A. W. van der, detection and determination of the carboxyl group by distillation with zinc dust in a current of hydrogen, A., 62.
 saponins and related substances. XXII., A., 92.
 saponins and related substances. XXIII. Saponin from the seed kernels of *Achras sapota*, L., and its hydrolysis, A., 92.
 Haarmann, W. See Hahn, A.
 Haas, A. R. C., oxidation-reduction indicators as a means of determining overheating in walnuts during dehydration, B., 684.
 boron as an essential element for healthy growth of citrus, B., 834.
 Haas, H., tunnel or channel dryer for earthenware, etc., (P.), B., 1030.
 Haas, M., and Uno, D., hardening of copper-silver, beryllium-copper, and zinc-copper alloys, B., 716.
 hardening of beryllium-aluminium and magnesium-aluminium alloys, B., 1072.
 Haas, P., micro-determination of methylimides, A., 489.
 Haas, P., and Rappaport, F., use of cerium dioxide as contact substance in micro-elementary analysis, A., 181.
 Haase, E. See Haase, K.
 Haase, K., Haase, O., and Haase, E., (Haase, T.), treatment of textile goods for identification, (P.), B., 1107.
 Haase, L. W., oxygen depolarisation current; influence of light, A., 1126.
 Haase, O. See Haase, K.
 Haase, R. See Sachse, H.
 Haase, T. See Haase, K.
 Haber, E., heat exchanger, (P.), B., 222.
 heat-exchanging apparatus, (P.), B., 306.
 Haber, F., ignition of electrolytic gas, A., 1528.
 Haber, F. See also Alyea, H. N., Ethier, J. P., and Farkas, L.
 Haberland, rapid analysis of manganese-brasses, B., 772.
 Haberlandt, L., heart hormone, A., 118.
 excitant substance in the central nervous system, A., 1064.
 Habgood, B. J. See Smith, W. S.
 Hackett, R. W. See Kolb, L. J.
 Hackford, J. E., low-temperature carbonisation of coal and other suitable fuels, (P.), B., 545, 936.
 Hackford, J. E. See also Bindphast Products, Ltd.
 Hackmann, C., determination of the moisture content of cheese, curd, etc., (P.), B., 216.
 Hackspill, L., and Kieffer, A. P., hydrates of metallic oxides and salts, A., 1535.
 Hackspill, L., and Schwarz, Edgar, decarburisation of carbon-iron alloys, B., 421.
 Hackspill, L., and Winterer, pyrogenic decomposition of the alkaline-earth bromates, A., 1522.
 Hadank, E., production of a lather-forming depilating preparation, (P.), B., 1165.
 Hadaway, W. S., jun., and Texas Co., apparatus for cracking oils, (P.), B., 806.
 Haddon, E., determination of sugar in molasses from Uba cane, B., 477.
 Haddon, W. See Haddon, Walter.
 Haddon, Walter, and Haddon, W., [sealing the covers of] electric accumulators, (P.), B., 776.
 Haddon, Walter, and Winfield, J., non-corrodible metal [aluminium bronze], (P.), B., 720.
 Hadfield, (Sir) R., Elliot, T. G., and Sarjant, R. J., recent developments in corrosion- and heat-resisting steels, B., 614.
 Hadfield, (Sir) R., and Main, S. A., use of steel in the oil industry, with special reference to heat-resisting steels, B., 513.
 Hadfield, (Sir) R., and Sarjant, R. J., heat economy in metallurgical furnaces, B., 666.
 Hadman, G. See Hinshelwood, C. N.
 Haebler, H. See Neumann, B.
 Haefely, G. E. See Micanite & Insulators Co., Ltd.
 Haegermann, composition and properties of so-called "natural cements," B., 241.
 Hägg, G., X-ray studies on binary systems of iron with nitrogen, phosphorus, arsenic, antimony, and bismuth, A., 138.
 binary systems of transition elements with boron, carbon, and nitrogen, A., 147.
 X-ray examination of the system iron-arsenic, A., 528.
 X-ray investigation of nitrides of molybdenum and tungsten, A., 671.
 X-ray investigation of iron nitrides, A., 1097.
 Hägg, G., and Funke, G., X-ray analysis of system nickel-bismuth, A., 284.

- Hägglund, E., α - and β -lignosulphonic acids, A., 1169.
production of baker's yeast from waste sulphite liquors, B., 344.
treating and utilising the black liquor obtained in the soda-pulp process, (P.), B., 901.
- Hägglund, E., Johnson, T., and Trygg, L. H., carbonyl groups of lignin and its sulphonates and sulphate pulp digestion, B., 552.
- Hägglund, E., Johnson, T., and Urban, H., influence of sulphite and hydrogen sulphite solutions on sugars at high temperatures. III, A., 1022.
- Hägglund, E., and Klingstedt, F. W., characterisation of cellulose preparations by the rotation method. II, A., 198.
- Haehn, H., and Engel, M., formation of lactic acid by *Bacterium xylinum*; lactic acid fermentation by kombucha, A., 1477.
- Haehre, E., and Roberts & Co., T., silver extraction [from ores], (P.), B., 670.
- Haendel, M., and Malet, J., ergosterol poisoning, A., 1223.
- Haendel, W., [photochemical] dyeing and figuring of woven, knitted, and plaited fabrics, leather, and other fibrous material, (P.), B., 902.
- Hänig & Co., V., rotating extraction drum, (P.), B., 269.
- Haenny, C., photochemical reaction between sulphur and yellow arsenic, A., 1533.
- Haenny, C. See also Marie, C.
- Hänsel, G. See Hosenfeld, M.
- Härdén, J., electric induction smelting furnaces, (P.), B., 515.
- Härle, R. See Klenk, E.
- Häusler, H. See Emich, F.
- Häusser, F. See Ges. für Kohlentechnik m.b.H.
- Häussler, E. P., and Brauchli, E., unsaponifiable fraction of bile lipins, A., 1609.
- Haffey, E. F. See Koenig, H. T.
- Hafstad, L. R., and Dahl, O., vacuum prebaking furnace, A., 1395.
- Hagem, O. See Gaarder, T.
- Hagen, H., and Sieverts, A., sodium hydride. I. Preparation and density. II. Heat of formation, A., 307.
germanium, indium, niobium, titanium, and hydrogen, A., 308.
- Hagen, H. F. See Sturtevant Co., B. F.
- Hagen, S. K., hydrocyanic acid in Lima beans. II. Influence of heat on the toxicity of the beans, B., 788.
- Hagenbuch, W. See Bernoulli, A. L.
- Hager, F., drying and firing of ceramic ware in the same kiln, (P.), B., 145.
- Hager, F. D. See Hussey, S. C.
- Hager, G., nutrient contents of Rhineland soils, B., 784.
- Hager, G., and Stollenwerk, W., to what extent can ammonium salts cause acidity in soils, by the preferential absorption of ammonium cations compared with anions? B., 833.
- Hagiwara, M. See Komatsu, S.
- Haglund, T. R., production of metals and alloys, (P.), B., 20*.
production of anhydrous aluminium chloride, (P.), B., 57.
production of metals [chromium] and alloys, (P.), B., 1159.
- Haglund, T. R., and International Patent Corporation, production of aluminium compounds, (P.), B., 946*.
[electrolytic] production of aluminium and its alloys, (P.), B., 954*.
- Hague, E. N., and Wheeler, R. V., pyrolysis of the paraffins, B., 90.
- Hahn, A., and Haarmann, W., dehydrogenation processes in muscle, A., 498.
degradation of fructosediphosphoric, glycerophosphoric, and propionic acids in muscle, A., 1064.
- Hahn, C. See Siemens-Schuckertwerke A.-G.
- Hahn, D. A., and Dyer, E., synthesis of the polypeptide hydantoin, 5-*p*-hydroxybenzyl-3-methylhydantoin-1- α -phenylacetic acid, A., 1047.
isomerism of unsaturated acids obtained in the synthesis of 5-*p*-hydroxybenzyl-3-methylhydantoin-1- α -phenylacetic acid, A., 1047.
- Hahn, F. L., designation of the sensitivity of analytical reactions, A., 441.
micro-catalytic detection of the platinum metals, A., 445.
determination of end-points in potentiometric titrations. IV. Influence of errors of measurement and disturbances on the end-point error, A., 560.
determination of substances which evolve chlorine, A., 568.
"more perfect indicators" and some other misapprehensions in the realm of volumetric analysis, A., 1009.
cuprous sulphide as gravimetric form, A., 1011.
new principle of nephelometric comparison, A., 1013.
potentiometric determination of acids and bases, A., 1263.
- Hahn, F. L., constitution of borates, A., 1502.
reagent capillaries and their application to the detection of nitrate and nitrite, A., 1542.
luminescence test for tin, A., 1548.
analysis of aluminium alloys, B., 512.
- Hahn, F. L., and Clos, H., processes occurring in thiosulphate solutions on keeping, A., 51.
iodometric determination of ferric iron and copper, A., 54.
- Hahn, F. L., and Klockmann, R., determination of equilibrium constants of chemical reactions by potentiometric titration, A., 560.
- Hahn, F. V. von, rate of settling of blood-corpuscles and surface tension, A., 102.
colloid chemistry of urine. VII. Surface activity of urine in relation to bodily effort and mental excitement, A., 105.
action of vitamins and surface activity, A., 1222.
vitamins. I. Vitamin content of foods and delicacies. II. Vitamin content of preparations manufactured from fresh vegetables [fruit], B., 838.
- Hahn, G., and Schuch, W., yohimba alkaloids. V. Acetylation of isoyohimbine, A., 227.
yohimba alkaloids. VI. Two further subsidiary alkaloids of yohimbine, A., 1194.
- Hahn, M., and Hirsch, Julius, cholera toxin, A., 819.
- Hahn, M., and Wolf, Marie, production of explosives, (P.), B., 588.
- Hahn, O., radioactive substances in the service of chemical and physico-chemical research, A., 131.
atomic transformations and their significance in chemistry and physics, A., 132.
precipitation and adsorption of traces of material on crystalline precipitates, A., 1365.
- Hahn, O., and Müller, Helmut, radioactive method for testing the properties of glasses, B., 905.
- Hahn, O., and Werner, O., group formation of radioactive atoms, A., 130.
- Hahn, O. See also Bodenstein, M.
- Haigh, B. P., and Jones, B., atmospheric action in relation to fatigue in lead, B., 425.
- Haight, M., determination of concentration of hydrogen peroxide solutions, A., 441.
- Hailwood, A. J. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Hailwood, E. A., muffle furnaces, etc., (P.), B., 798.
- Haimes, R., disinfecting or sterilising devices for use in connexion with bottle and similar washing apparatus, (P.), B., 742.
- Haines, E. C. See Du Pont de Nemours & Co., E. I.
- Haines, W. B., physical properties of soil. V. Hysteresis effect in capillary properties, and modes of moisture distribution associated therewith, B., 629.
- Haintz, O., effect of ephedrine on adrenaline hyperglycæmia, A., 503.
- Haitinger, M., fluorescence microscope made from simple materials, A., 446.
- Haitinger, M., Linsbauer, L., and Eibl, A., behaviour of living and frozen wood in ultra-violet light, A., 122.
- Haitinger, M., and Reich, V., technique of fluorescence analysis, A., 187.
- Hakomori, S., electrode potential of indium against indium chloride solutions, A., 998.
- Haksar, L. N. See Yajnik, N. A.
- Halban, H. von, and Eisenbrand, J., condition of strong electrolytes in concentrated solution. III. Tetra-alkylammonium nitrates, A., 410.
- Halban, H. von. See also Eisenbrand, J.
- Halbe, G., dissolving and removing metallic fouling from the surface of iron and steel objects, (P.), B., 994.
- Halber, W. See Kolodziejska, Z.
- Halber, H. von. See Metallbank & Metallurg. Ges. A.-G.
- Halberschadt, H. See Trogus, C.
- Halberstadt, S., and Prausnitz, P. H., size of gas bubbles and liquid drops in liquids, A., 1516.
- Halberstadt, S. See also Sieverts, A.
- Haldane, J. B. S., kinetics of diastatic actions, A., 1128.
- Haldane, J. B. S. See also Cook, R. P.
- Haldane, J. H., and Deerr, N., baryta-alumina clarification of cane-sugar products, B., 298.
- Halden & Co., Ltd., J., and Holden, J., treatment of photo-printing materials for the establishing of images thereon, (P.), B., 395.
- Hale, D. R., induced reactions and the higher oxides of iron, A., 41.

- Hale, F. C. -See Brit. Celanese, Ltd.
- Hale, F. E., manganese dioxide in the aqueduct of the Catskill water supply, B., 642.
- Hale, J. T. See Schuette, H. A.
- Hale, M. M., gaseous ammonia for superphosphate, B., 142.
- Hale, N. H. See Olin, H. L.
- Hale, W. J., Britton, E. C., and Dow Chemical Co., manufacture of phenols, (P.), B., 754.
- Hale, W. J., Cheney, G. H., and Dow Chemical Co., manufacture of halogenated anilines, (P.), B., 135.
- Halferdahl, A. C., reactions between iron sulphide, sulphur dioxide, and iron oxides in the metallurgy of copper, B., 1032.
- Halford, J. O. See Randall, M.
- Halkyard, H. See Addy, C. W.
- Hall, A. E., and American Smelting & Refining Co., treating mixtures of alkali stannates, arsenates, and antimonates, (P.), B., 862.
- Hall, A. J., dyeing machines, (P.), B., 458.
- Hall, A. J., fine structure of artificial silks in relation to dyeing and finishing processes, B., 1023.
- Hall, A. J., test for strained viscose threads, B., 1145.
- Hall, A. J., and Celanese Corporation of America, process in which cellulose acetate artificial silk and similar products are treated with hot liquors, (P.), B., 763*.
- Hall, A. J. See also Silver Springs Bleaching & Dyeing Co., Ltd.
- Hall, C. H. See Haslam, G. S.
- Hall, D. A., and Tawada, K., absolute amount of radiant heat emitted during gaseous explosions, A., 1394.
- Hall, D. A. See also Garner, W. E.
- Hall, E. H., dual theory of metallic conduction, A., 531.
- Hall, E. H., "reaction-isochore" equation for ionisation within metals, A., 987.
- Hall, E. J. See Humphreys & Glasgow, Ltd.
- Hall, F. G., ability of marine fishes to remove oxygen from seawater, A., 1199.
- Hall, F. P., influence of chemical composition on the physical properties of glazes, B., 461.
- Hall, F. W., and Texas Co., illuminating oil and its manufacture, (P.), B., 938.
- Hall, G., evaluation of unbleached chemical wood pulps, B., 503.
- Hall, G. A., identification and evaluation of unbleached chemical wood pulps, B., 137.
- Hall, H., comparative study of the non-gluten constituents of soft and hard wheat flours, B., 788.
- Hall, H. C., and Bradbury, T. F., aluminium alloy, (P.), B., 198, 720, 1034.
- Hall, H. C., Bradbury, T. F., and Rolls Royce, Ltd., aluminium alloy, (P.), B., 245*.
- Hall, L. P., determination of small amounts of acid in ether, B., 894.
- Hall, M. B., and Foxboro Co., [regulation of] dry kilns, (P.), B., 1008.
- Hall, O. A., and Brown Line Process Co., photographic chemical process and material [production of diazotypes], (P.), B., 1005.
- Hall, P. E., chemical and microscopical investigations of the coals from the Witbank and Ermelo coal fields, B., 445.
- Hall, R. E., and Hopwood, J. M., treatment of steam-boiler water, (P.), B., 1096.
- Hall, V. C. See Trivelli, A. P. H.
- Hall, W. C., Slater, C. S., and Acree, S. F., preliminary investigations on two cellulosic wastes as sources of xylose, B., 737.
- Hall, W. T. See Badger & Sons Co., E. B.
- Halla, F., electrolysis by means of an asymmetrical alternating current, A., 165.
- Halla, F., reaction between titanium sesquioxide and iron oxides, A., 177.
- Halla, F., electrochemical oxidation of o-toluenesulphonamide to saccharin, A., 432.
- Halla, F., and Adler, J., X-ray investigations on the system cadmium-antimony, A., 147.
- Halla, F., and Bosch, F. X., X-ray investigation of the system sulphur-selenium. I. Rhombic mixed crystals of sulphur and selenium, A., 1503.
- Halla, F. See also Burgeni, A.
- Halle, F. See Enger, R., and Flaschenträger, B.
- Haller, H. L., and La Forge, F. B., rotenone. V. Identity of isotubanic and rotenic acids, A., 1043.
- Haller, J., rotenone. VII. Structure of tubanol and tubaic acid, A., 1440.
- Haller, J. See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
- Haller, M. H., changes in the pectic constituents of apples in relation to softening, A., 258.
- Haller, P., and Kappeler, H., manufacture of [horn-like] condensation products of arylamines [with formaldehyde], (P.), B., 520.
- Haller, R., reducing properties of wool, B., 856.
- Haller, R., and Eckardt, K., basic cotton dyeing, B., 139.
- Haller, R., and Ziersch, G., action of light on dyed fabrics, B., 369.
- Hallermann, F., evaluation of tincture of iodine, B., 1090.
- Hallmond, A. F., electromagnetic separator for mineral powders, A., 1395.
- Halliwell, G. P. See Westinghouse Electric & Manuf. Co.
- Hallner, W. See Rubens, B.
- Hallonquist, E. G. See Clark, R. H.
- Halloran, R. A., Davis, W. N., Davidson, G. A., and Standard Oil Co. of California, treatment of acid sludge and fuel product obtained therefrom, (P.), B., 1014.
- Halpern, O., and Sexl, T., theory of normal Zeeman effect, A., 3.
- Halpin, J. G. See Elvehjem, C. A.
- Halter, A. See Otto, Rudolf.
- Haltmeier, O., graphical evaluation of sieve analyses [of grist], B., 526.
- Halton, P. See Fisher, E. A.
- Halvorson, G. H., determination of volatile matter in combustible material, (P.), B., 405.
- Hamada, H. See Okubu, J.
- Hamakado, H., manufacture of waterproof composition for Portland cement, (P.), B., 420.
- Hamasumi, M. See Nishigori, S.
- Hambach, O. See Curtius, T.
- Hamburg, M. See Jalowetz, E.
- Hamburger, (Miss) E. R. See Thomas, A. W.
- Hamburger, F., jun., polar molecules, their contribution to energy loss in dielectrics, A., 841.
- Hamburger, M. See Achard, C.
- Hamburger, R., Kaesz, S., and Standard Brands, Inc., treatment of molasses [for use in manufacture of yeast], (P.), B., 836*.
- Hamburger, T. See Riesenfeld, E. H.
- Hamer, (Miss) F. M., cyanine dyes from quaternary salts of methyl- α - and β -naphthathiazoles, A., 96.
- Hamer, (Miss) F. M., cyanine dyes from quaternary salts of 2-methylacenaphthopyridine and 5-methylacridine, A., 930.
- Hamer, (Miss) F. M., desensitising action of sodium sulphite; addition of densitisers to developers, B., 167.
- Hamer, (Miss) F. M., desensitisers. III. Desensitising properties of chrysoidine and some of its derivatives, B., 883.
- Hamer, (Miss) F. M., desensitising properties of Basic Scarlet N, B., 1092.
- Hamer, (Miss) F. M. See also Bloch, O.
- Hamer, W. E. See Jones, F. E.
- Hamilton, B., Kajdi, L., and Meeker, D., effect of administration of phosphorus, antirachitic treatment, and spontaneous healing on calcium of the blood-serum of rachitic rabbits, A., 1311.
- Hamilton, C. S., and Ludeman, C. G., direct arsenation of benzene derivatives, A., 1300.
- Hamilton, C. S. See also Gislak, F. E., and Scott, A. B.
- Hamilton, J. C., Thurman, B. H., Copes, L. G., and Best Foods, Inc., treatment of cod-liver oil, (P.), B., 778.
- Hamilton, S. N. See Shutt, F. T.
- Hamilton, T. S., Hunt, G. E., Mitchell, H. H., and Carroll, W. E., production and cure of nutritional anæmia in suckling pigs, A., 1058.
- Hamilton, T. S., and Kick, C. H., value of potassium iodide as a supplement to the ration of growing chicks, A., 1314.
- Hamilton, T. S. See also Mitchell, H. H.
- Hamilton, V. See Lewis, I. M.
- Hamilton, W. B., and Evans, T. A., production of metals and alloys by exothermic reduction, (P.), B., 913.
- Hamilton, W. B. See also Sanborn, J. R.
- Hamilton, W. C., Sims, C. E., and American Steel Foundries, steel, (P.), B., 465.
- Hamilton, W. C., and American Steel Foundries, high-silicon and high-manganese steel, (P.), B., 1033.
- Hamilton, W. F., industrial analysis and recording of carbon dioxide and oxygen in air, B., 930.
- Hamm, H. A., and Stevens, R. E., measuring the stress-strain relation of wet textiles with application to wet rayons, B., 367.
- Hammann, G. See Rupp, E.
- Hammarsten, E., application of the Donnan effect to nucleic acid compounds, A., 288.
- Hammarsten, E., and Hammarsten, G., nucleic acid-protein compounds, A., 233.

- Hammarsten, E., Hammersten, G., and Teorell, T., microchemical reactions. I. Compounds of dyes with protein-nucleic acid. II. Precipitation of protein-nucleic acid with lanthanum and sulphosalicylate ions, A., 233.
- Hammarsten, E., and Jorpes, E., effect of the pancreas secretion on the alkali reserve of the blood and on the hydrogen-ion concentration of the gland, A., 364.
- Hammarsten, G. See Hammarsten, E.
- Hammermill Paper Co. See Johnsen, B.
- Hammers, W. J., and Liverance & Van Antwerp, welding-rod coating, (P.), B., 914.
- Hammersley, S. S. See Bolton, J. A.
- Hammett, F. S., biology of metals. III. Localisation of lead within the cell of the growing root. IV. Influence of lead on mitosis and cell size in the growing root. VI. Nature of the lead compound deposited in the growing root, A., 1326.
- Hammett, F. S., and Justice, E. S., biology of metals. V. Selective fixation of lead by root nuclei in mitosis, A., 1326.
- Hammick, D. L., and Illingworth, W. S., new orientation rule and the anomaly of the nitroso-group, A., 1566.
- Hammick, D. L., New, R. C. A., Sidgwick, N. V., and Sutton, L. E., structure of the carbalamines and other compounds of bivalent carbon, A., 1239.
- Hammick, D. L., and Zvegintsov, M., internal equilibrium in sulphur. II. Amorphous sulphur (S_8) as a gel and the Tyndall effect in liquid sulphur, A., 419.
- Hammond, C. F., history and development of submerged combustion, B., 697.
- Hammond, C. F., and Shackleton, W., heat-treatment process and apparatus in which a hot liquid mass is employed, (P.), B., 747*, 932*.
- apparatus for liquid treatment of textile materials, etc., (P.), B., 1149.
- Hammond, F. See Leech, B.
- Hammond, H. E., E.M.F., resistance, and capacitance phenomena in photovoltaic cells containing Grignard reagents, A., 846.
- Hammond, R. A. F. See Macnaughton, D. J.
- Hamous, J., determination of the sugar content of carbonatation scums, B., 525.
- steam consumption in [beet-sugar] diffusion, B., 924.
- Hampel, H., casting bed for production of films from solutions of plastic masses, especially for obtaining viscose films, (P.), B., 185.
- production of thin films or strips from solutions of cellulose or its derivatives [by extrusion], (P.), B., 280.
- Hamprecht, G. See König, W.
- Hampton, W. M., nature of "rough cake" [from polishing of glass], B., 988.
- Hampton, W. M. See also Gould, C. E.
- Hamshire, J. L., mobility of ions in air, A., 835.
- Hamsik, A., "inactivation" of oxyhaemin, A., 490.
- preparation and coupling of globin, A., 630.
- additive power of haematin, A., 1304.
- Hanak, A., preservation of fruit juice with formic acid, A., 1068.
- preservation of raspberry juice with hydrofluoric acid, B., 482, 964.
- Hanák, M. See Gróh, J.
- Hanant, L. See Bergkampff, E. S. von.
- Hanby, W., manufacture of tinned metal products; annealing or coating of metals; manufacture of metal products covered with a coating of metal (e.g., zinc) or alloy, (P.), B., 63.
- Hancock, R. S. See Kaiser, H. E.
- Hand, C. N., Bartram, T. W., Maude, A. H., and Rubber Service Laboratories Co., manufacture of acetaldehyde, (P.), B., 754.
- Hand, C. N., and Rubber Service Laboratories Co., manufacture and use of insecticides, (P.), B., 29.
- Hand, D. B., dinerio distribution, A., 1512.
- Hand, P. G. T. See Allmand, A. J.
- Handley, R. See Brit. Celanese, Ltd.
- Handt, T. See Seeliger, R.
- Handy, R. S., Beard, R. R., and Patino Mines & Enterprises Consolidated, Inc., concentration of [tin] ores, (P.), B., 289.
- Handy, R. S., and Patino Mines & Enterprises Consolidated, Inc., flotation of cassiterite, (P.), B., 289.
- Hanekop, G., and Schmidt, Walter, electrolyte for galvanic elements or [Leclanché] cells, (P.), B., 22.
- Hanemann, H., heat-treatment of steel, (P.), B., 617.
- Hanemann, H., and Schildkötter, A., system sulphur-iron-carbon, B., 242.
- Hanf, E. M. See Fleckenstein, G. A.
- Hanford, Z. M. See Papish, J.
- Hanique, A., apparatus for determining the volume and density of granular materials passing through it, (P.), B., 490.
- Hanke, E., and Deutschmann, F., xylene value [of adulterated butter], B., 738.
- Hanke, H. See Windisch, W.
- Hanke, M. T. See Koessler, K. K.
- Hanle, W., and Schaffernicht, W., light yield in excitation by electronic impacts, A., 131.
- measurement of the light yield in the mercury spectrum by excitation through electron collision, A., 1490.
- Hanley, H. R., Clayton, C. Y., and Walsh, D. F., anodes for the production of electrolytic zinc, B., 912.
- Hann, R. M., Reid, E. E., and Jamieson, G. S., phenacyl, *p*-chloro- and *p*-bromo-phenacyl esters of higher fatty acids, A., 474.
- Hanna, R. W., and Standard Oil Co. of California, distillation of petroleum oils, (P.), B., 232.
- Hannah, J. McK. See Dyer, P. E.
- Hannah, W. S. See Brit. Portland Cement Manufrs., Ltd.
- Hannen, P. T., Bruce, H. D., and United States, composition of matter [water-glass paint], (P.), B., 570.
- Hanning, F. See Steenbock, H.
- Hannum, J. A. See Chisholm, D. C.
- Hanovia Chemical & Manufacturing Co., forming copper-copper oxide rectifier plates, (P.), B., 672.
- Hanovia Chemical & Manufacturing Co. See also Anderson, W. T., jun.
- Hanseatische Apparatebau-Gesellschaft vorm. L. von Bremen & Co., production of artificial fog, (P.), B., 127.
- Hansen, A. See Pfeiffer, P.
- Hansen, C. J., and Koppers Akt.-Ges., H., obtaining ammonium sulphate and sulphur from ammonium thiocyanate, (P.), B., 323, 373.
- removal of ammonia and sulphuretted hydrogen from gases, (P.), B., 449, 546, 752.
- treatment of thiocyanates, (P.), B., 556.
- apparatus for decomposition of thiocyanic acid and its salts, (P.), B., 946.
- Hansen, H., co-ordination properties of halides near the volatility limit, and determination of structure of the halides AX_n , A., 981.
- Hansen, H. K., determination of non-sulphide lead, B., 148.
- Hansen, J., iodine [feeding] question, B., 964.
- Hansen, L. A., and Williams, J. W., activity coefficients of ions in dilute solution in ethyl alcohol-water mixtures, A., 1121.
- Hansen, M., hardness of silver-rich copper-silver alloys, A., 405.
- ageing mechanism of zinc-copper alloys, B., 716.
- Hansen, M. See also Bauer, O.
- Hansen, O. H., and Hansen Canning Machinery Co., sterilisation of food, (P.), B., 1045.
- Hansen, P. A., detection of ammonia production by bacteria in agar slants, A., 644.
- Hansen, R. See Pfeiffer, P.
- Hansen, W. C., influence of magnesia, ferric oxide, and soda on the temperature of liquid formation in certain Portland cement mixtures, B., 284.
- hydration of calcined gypsum, B., 769.
- Hansen Canning Machinery Corporation. See Hansen, O. H.
- Hansena A.-G. See Nathan, L.
- Hanson, A. C., corrosion and protective films, B., 667.
- preservation of highly-polished surfaces [of steel], B., 771.
- Hanson, A. F. See Budd Wheel Co.
- Hanson, C. W. See Perkins, M. F.
- Hanson, D., Archbutt, S. L., and Ford, G. W., effects of impurities on copper. VI. Effect of phosphorus on copper, B., 422.
- Hanson, I. E., and Gaffney, J. B., apparatus for solidifying [molten] sulphur, (P.), B., 418.
- Hanson, N. W., and Williams, D. M., addition of halogens to unsaturated acids and esters. III. Velocity of bromine addition, A., 913.
- Hanson, S., effect of yohimbine on blood-sugar, A., 370.
- Hanson-Van Winkle-Munning Co. See Hogaboom, G. B., and Taylor, F. T.
- Hanssen, R., colorimetric determination of tin, A., 445.
- Hanssen, R. See also Brass, K.
- Hansson, N., nutritive requirements of milch cows in relation to the composition of the milk produced, B., 162.
- Hanstock, R. F. See Shaw, P. E.

- Hantzsch, A., constitution and reactions of the isomeric diazo-hydrates, A., 1032.
 acidium salts of hydrogen fluoride and hydrogen chloride, A., 1140.
 formation of salts by compounds with several nitrogen atoms in sulphuric acid, A., 1199.
 diazonium salts, A., 1280.
 [spectra of] solutions of nitrates and nitric acid, A., 1344.
 Hantzsch, A., and Berger, K., nitrosyl perchlorate and nitrosyl sulphate, and their coloured reduction products, A., 1007.
 Hantzsch, A., and Brnawoy, A., supposed existence of colourless triphenylmethyl salts, A., 901.
 salts from benzene-4-azopyridine, A., 1191.
 constitution of *p*-aminoazobenzene salts, A., 1280.
 Hantzsch, A., and Czapp, E., absorption and constitution of coloured acids, esters, and salts of indandione derivatives, A., 475.
 transformation of ethyl oxindonecarboxylate into a naphthalenecarboxylic ester, A., 599.
 Hantzsch, A., and Dürigen, F., refraction of electrolytes, A., 690.
 Hantzsch, A., and Kröber, W., salt formation of ethyl acetoacetate and of acetylacetone, A., 1021.
 Hantzsch, A., and Rosenblatt, F., constitution of tetramine-platinum salts, A., 440.
 Hantzsch, A. See also Dürigen, F.
 Hanusch, F. See Stollé, R.
 Haque, M. A., magnetic birefringence of ethyl alcohol, water, and of aqueous solutions of nitrates, A., 668.
 Hara, G. See Tanaka, G.
 Hara, K., haemolytic action of saponin, A., 361.
 Hara, R. See Miura, H.
 Harada, T., reduction of tin trimethyl hydroxide in liquid ammonia, A., 200.
 Haraguchi, K., phenocrysts of volcanic rocks and tertiary fossils in Quelpart (Saishu) Island, A., 1551.
 sodalite in nepheline-syenite of Fukushima, Korea, A., 1551.
 Harben's (Viscose Silk Manufacturers), Ltd., and Goodwin, L. C., spinning machinery for artificial silk, (P.), B., 320.
 Harben's (Viscose Silk Manufacturers), Ltd. See also Leon, M.
 Harbich, E., chromiferous smaragdite from Serbia, A., 57.
 Harbison, R. W., effect of anodic impurities on the electrodeposition of gold, B., 1114.
 Harde, E., and Henri, P., [effect of] folliculin and the hormone of the anterior pituitary lobe in cancer of mice, A., 241.
 Harden, A., and Macfarlane, M. G., fermentation by yeast preparations, A., 818.
 Harder, F., sterilisation of beer by filtration, B., 835.
 Hardgrove, R. M., and Fuller-Lehigh Co., grinding mill, (P.), B., 400*.
 Harding, V. J., and Nostrand, F. H. van, influence of nutritive condition on the dextrose tolerance test, A., 367.
 variations in sugar of blood and urine after ingestion of galactose, A., 493.
 Hardt, A. See I. G. Farbenind. A.-G.
 Hardtmann, M. See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
 Hardy, A. E., electroplating with chromium on other metals, especially iron, (P.), B., 151.
 Hardy, F., determination of soil organic matter: wet combustion method, B., 28.
 Hardy, H., apparatus for high- or low-temperature distillation of coal or lignite, (P.), B., 1011.
 low-temperature distillation of coal or lignite with production of semi-coke and valuable by-products, (P.), B., 1011.
 Hardy, W. B., static friction and adsorption, A., 685.
 Hargreaves, C. C. See Swanson, E. E.
 Hargreaves, F., heat-treatment, ball hardness, and allotropy of lead, B., 993.
 Hargreaves, G. W. See Blicke, F. F.
 Hargreaves, J., effect of a nucleus spin on the optical spectra. II. and III., A., 652, 832.
 Hári, P., urinary pentose in chronic pentosuria, A., 1469.
 Harig, G. See Seitz, W.
 Harington, C. R., and Randall, S. S., chemical assay of thyroid gland, A., 504.
 Harington, C. R., and Salter, W. T., isolation of *l*-thyroxine from the thyroid gland by the action of proteolytic enzymes, A., 820.
 Harington, C. R. See also Ashley, J. N.
 Harkavy, J., spasm-producing substance in sputum of patients with bronchial asthma, A., 806.
 Harkins, H. M. See Brown, E. B.
 Harkins, W. D., and Bowers, H. E., continuous (or band) fluorescence emission spectrum which accompanies change of colour, A., 1500.
 Harkins, W. D., and Dahlstrom, R., wetting of pigments and other powders, B., 1038.
 Harkins, W. D., and Gans, D. M., spectroscopic determination of decomposition products of organic compounds; benzene in the electrodeless discharge, A., 1171.
 Harkins, W. D., Gans, D. M., and Bowers, H. E., Raman effect for solutions of sulphur dioxide, A., 521.
 Harkins, W. D., and Jordan, H. F., determination of surface and interfacial tension from the maximum pull on a ring, A., 852.
 Harkins, W. D., and Schuh, A. E., frequency of occurrence of the disintegrative synthesis of oxygen 17 from nitrogen 14 and helium, A., 658.
 Harkins, W. D. See also Gans, D. M.
 Harlan, W. R. [with Hixon, R. M.], catalytic reduction of nicotine and *meta*-nicotine, A., 1300.
 Harley, A., composite plaster boards or slabs intended particularly for building purposes, (P.), B., 559.
 Harley, C. P., relation of picking time to acetaldehyde content and core breakdown of Bartlett pears, A., 121.
 Harloff, C. S. See Corwin, F. R.
 Harman, W. See Streeter, L. R.
 Harnapp, O. See Le Blanc, M.
 Harned, H. S., and Schupp, O. E., jun., activity coefficients of caesium chloride and hydroxide in aqueous solution, A., 1520.
 activity coefficient and dissociation of water in caesium chloride solutions, A., 1520.
 Harnist, C., modes of reaction of phosphorus pentachloride, A., 1388.
 Harper, G. I., and Salaman, E., ranges of α -particles, A., 659.
 Harper, H. See Imperial Chem. Industries, Ltd.
 Harper, H. J., use of sodium chlorate in the control of Johnson grass, B., 1001.
 Harper Electric Furnace Corporation. See Fitzgerald, F. A. J., and Kelleher, J.
 Harral, J. C., detection and determination of benzoic acid, A., 1198.
 Harrap, E. R. See Bell's United Asbestos Co., Ltd.
 Harrassowitz, H., rôle of silicon, aluminium, and iron in the weathering of the earth's crust, A., 448.
 bleaching processes [in rocks], A., 734.
 Harrel, C. G., points for consideration in baking tests, B., 33.
 Harrell, J. W. See Turner, S. D.
 Harrington, E. L., rapid positive control method of handling small quantities of liquids, A., 1549.
 Harrington, G. D., pulveriser, (P.), B., 692.
 Harrington, M. C. See Uytendhoeven, W.
 Harris, C. G. See Imperial Chem. Industries, Ltd.
 Harris, E. E., action of metallic sodium on trichloro-diphenyl- and -ditolyl-ethanes, A., 1424.
 Harris, E. E., Haugen, H. W., and Fahl, B. E., azo-indicators, A., 1009.
 Harris, E. G. See Morton, J.
 Harris, E. H., and Herr, B. M., fractionating apparatus, (P.), B., 746.
 Harris, F. C., photo-elastic properties of glass, B., 59.
 Harris, F. E., soldering flux, (P.), B., 1077.
 Harris, F. W., solubility of zinc in sulphuric acid, A., 870.
 Harris, G. D. See Industrial Dryer Corp.
 Harris, G. H., tree root activities. II. Factors which influence tree root respiration, A., 964.
 Harris, H., separation of oxy-salts from alkali mixtures containing same, (P.), B., 1029*.
 Harris, J., mechanical ore-roasting furnace, (P.), B., 618*.
 Harris, J. A. See Pearce, D. W.
 Harris, J. E., and Bell Telephone Laboratories, Inc., production of [metallic] materials in finely-divided form [for magnetic dust cores], (P.), B., 288.
 Harris, J. E. G. See Barnes, R. S., Morton, J., and Wylam, B.
 Harris, L. E., *Gleditschia triacanthos*, Linné; chemistry of the fruit, A., 507.
 Harris, L. G., plastic [cellulose-cement] compositions, (P.), B., 319.
 Harris, L. J., apparent rôle of the thymus in calcium metabolism, A., 645.
 hypervitaminosis-D: calcium-phosphorus intake a determining factor, A., 1481.
 Harris, L. J. See also Birch, T. W.

- Harris, M., and Johnson, T. B., study of the fibroin from silk in the isoelectric region, B., 653.
study of silk fibroin in the dispersed state, B., 1020.
- Harris, M. M. See Brand, F.
- Harris, S. A. See Gilman, H.
- Harris, W. D., and Aycock, R. V., apparatus for refining used lubricating oil, (P.), B., 806.
- Harris, W. D., Aycock, R. V., and RefinOil Manufacturing Corporation, treatment of [lubricating] oil, (P.), B., 599.
- Harris, W. E., treatment of mixed concentrates from base-metal sulphide ore, B., 1156.
- Harrison, A. D., heat-exchange apparatus, (P.), B., 885.
- Harrison, A. P., and Standard Brands, Inc., automatic fermentation apparatus, (P.), B., 738.
manufacture of yeast, (P.), B., 738*.
- Harrison, A. W. C., maintenance and working of simple types of autoclaves, B., 643, 743.
- Harrison, C. E., and American Engineering Co., reinforced crusher plate, (P.), B., 692.
- Harrison, C. F. R. See Imperial Chem. Industries, Ltd.
- Harrison, E. F., and Chemo-Mechanical Water Improvement Co., Inc., purification of polluted water, sewage, etc., by a chemo-biological-mechanical process, (P.), B., 84.
- Harrison, E. P. H., jun. See Stauder, H. T.
- Harrison, F. C., potassium nitrate in Canadian cheese, B., 119.
- Harrison, F. W. See Brit. Thomson-Houston Co., Ltd.
- Harrison, G. B., application of a new type of triode valve to the determination of hydrogen-ion concentration with glass electrodes, A., 1151.
- Harrison, G. B. See also Toy, F. C.
- Harrison, G. R., measurement of spectral light intensities by photography, A., 5.
- Harrison, G. R., and Leighton, P. A., homochromatic spectrophotometry in the extreme ultra-violet, A., 971.
- Harrison, H. A., emulsifiers, mixers, etc., (P.), B., 798.
- Harrison, J. M., heat-exchanging device [for radiators, etc.], (P.), B., 846.
- Harrison, R. W. See Edwards, P. W.
- Harrison, S. T., and Mellanby, E., inhibition of lactic acid formation in cancer and muscle, A., 365.
- Harrison, T. H., photo-electric recording of daylight, A., 728.
- Harrison, T. R., and Pilcher, C., congestive heart failure. II. Respiratory exchange during and after exercise, A., 1468.
- Harrison, T. R., Pilcher, C., and Ewing, G., congestive heart failure. IV. Potassium content of skeletal and cardiac muscle, A., 1468.
- Harrison, T. R. See also Pilcher, C.
- Harrison, W. H., report of the Imperial Agricultural Chemist, B., 27.
- Harrison, W. N. See Krynsky, A. I.
- Harrow, B. See Funk, C.
- Harrower, J. See Rule, H. G.
- Harshaw, W. J., Homer, G. L., and Harshaw Chemical Co., extraction of copper-nickel matte, (P.), B., 18.
- Harshaw, W. J., Parke, C. S., and Harshaw Chemical Co., drying of materials, (P.), B., 2.
- Harshaw, W. J., Savage, P. M., Bezzenberger, F. K., and International Nickel Co., Inc., [nickel] anode and its manufacture, (P.), B., 429*.
- Harshaw Chemical Co. See Harshaw, W. J.
- Hart, E. B., Elvehjem, C. A., Steenbock, H., Kemmerer, A. R., Bohstedt, G., and Fargo, J. M., anemia of young pigs, A., 1058.
- Hart, E. B., Steenbock, H., Kline, O. L., and Humphrey, G. C., diet and calcium assimilation. XIII. Influence of irradiated yeast on the calcium and phosphorus metabolism of milking cows, A., 636.
- Hart, E. B. See also Elvehjem, C. A., and Steenbock, H.
- Hart, F. L. C. See Hart & Co. Proprietary, Ltd.
- Hart, L. P., evaporation balance [for paint, varnish, and lacquer solvents], B., 469.
- Hart, L. P. See also Gardner, H. A.
- Hart, M. C., and Heyl, F. W., sterols of ergot, A., 910.
- Hart, M. C., Speer, J. H., and Heyl, F. W., α -ergosterol and its isomerisation to β -ergosterol, A., 911.
- Hart, R., geology and mineralogy of soils. II. Soils of South-East Scotland, B., 71.
- Hart, Ralph, carob-seed gum; its use for the detection and determination of boric acid and borates, A., 1145.
determination of neutral fat in sulphonated oils, B., 467.
silk-soaking process. I. Effect of soap and other alkali on silk sericin, B., 1020.
- Hart, Ralph, and Searell, G. W., silk-soaking process. II. Soap and oil as soaking agents, B., 1020.
- Hart & Co. Proprietary, Ltd., and Hart, F. L. C., preparation of insecticides and fungicides, (P.), B., 209.
- Harteck, P., concentration measurements in monatomic hydrogen, nitrogen, and oxygen, A., 394.
preparation of pure nitrogen, A., 438.
- Harteck, P., and Kopsch, U., gas reactions of atomic oxygen, A., 1388.
- Harteck, P., and Schmidt, H. W., detection of pure para-nitrogen, A., 557.
- Harteck, P. See also Farkas, L.
- Harter, H., exothermic catalytic gas reactions, (P.), B., 307.
apparatus for carrying out exothermic catalytic gas reactions, (P.), B., 1097*.
- Harter, I., and Kohler, A. M., refractory product, (P.), B., 14*.
- Hartford, C. E., manufacture and properties of a cellulose product (maizolith) from cornstalks and cobs, B., 654.
- Hartford-Empire Co., manufacture of refractory materials, (P.), B., 714.
mechanism for feeding molten glass, (P.), B., 714.
- Hartford-Empire Co., and Peiler, K. E., manufacture of glassware, (P.), B., 190.
- Hartford-Empire Co., and Willets, P. G., manufacture of refractory articles, (P.), B., 906.
glass tank furnaces, (P.), B., 1030.
- Hartley, C. J., [settlement tanks for] sewage purification, (P.), B., 1132.
- Hartley, D. D., subsequent additions of acid in Carius combustions, A., 1198.
- Hartley, (Sir) H., Theodore William Richards Memorial Lecture, A., 1266.
- Hartley, (Sir) H. See also Murray-Rust, D. M., and Unmack, (Miss) A.
- Hartley, H. J., and Nichols Copper Co., [multiple-hearth] roasting furnace construction, (P.), B., 722*.
- Hartley, J. F. See Lechluder, F.
- Hartman, F. A., and Brownell, K. A., hormone of the adrenal cortex, A., 1623.
- Hartman, H., incandescence electric tubes [for illumination in long lines], (P.), B., 108.
- Hartman, Henry, and Bullis, D. E., handling of sweet cherries with special reference to chemical and physiological activities during ripening, B., 638.
- Hartman, S. H. See Armstrong Cork Co.
- Hartmann, B. G., determination of cream of tartar and tartaric acid in tartrate baking powders, B., 1002.
- Hartmann, B. G., and Hillig, F., determination of citric acid in fruits and fruit products, B., 392.
determination of tartaric acid in fruits and fruit products, B., 392.
use of lead acetate in the determination of the acidity of fruit products, B., 837.
- Hartmann, C. See I. G. Farbenind. A.-G.
- Hartmann, E. See Fuchs, H. J.
- Hartmann, E. (Darmstadt). See Berl, E.
- Hartmann, Erich. See I. G. Farbenind. A.-G.
- Hartmann, F., and Large, A., decomposition of blast-furnace slag, B., 559.
- Hartmann, Hans, action of carbon monoxide on the metallic compounds of glutathione, A., 1202.
- Hartmann, Hellmuth, and May, G., m. p. of calcium, strontium, and barium, A., 144.
- Hartmann, Hellmuth. See also Tammann, G.
- Hartmann, M. See Soc. of Chem. Ind. in Basle.
- Hartmann, W., detection of the age of flours, B., 963.
- Hartmann & Braun A.-G. See Bestelmeyer, A.
- Hartner, F., interfacial energy between rubber and filling material, B., 158.
- Hartong, B. D., separation of protein-tannin during the boiling of wort, B., 163.
protein-tannin combination [in beer], B., 836.
- Hartshorn, L., surface-resistivity measurements on solid dielectrics, A., 984.
- Hartshorne, N. H. See Dippy, J. F. J.
- Hartstoff-Metall-Akt.-Ges. (Hametag), pulverising mills, (P.), B., 124.
charging regulator for disintegrating and similar mills or other apparatus, (P.), B., 537.

- Hartstoff-Metall-Akt.-Ges. (Hametag), and Kramer, E., shaft packings for grinding mills, (P.), B., 223.
- Hartt, H. A. See Crabtree, J. I.
- Hartung, K. See Brigl, P.
- Hartung, W. H., Munch, J. C., Deckert, W. A., and Crossley, F., amino-alcohols. II. Homologues and analogues of phenyl-propanolamine, A., 1286.
- Hartung, W. H. See also Krantz, J. C., *jun.*, and Munch, J. C.
- Hartwell, F. J. See Georgeson, (Miss) E. H. M.
- Hartwell, G. A., vitamin-C and the rat's diet, A., 1321.
- Hartwig, W., structure of anilic acid, A., 140, 984.
- Hartwig, H., proteolysis of milk, A., 1204.
- Hartzell, A., and Wilcoxon, F., naphthalene fumigation at controlled concentrations, B., 962.
- Harvel Corporation. See Harvey, M. T.
- Harvey, A., Zeeman effect in the band spectrum of helium, II., A., 509.
- Harvey, A., and Jenkins, F. A., alternating intensities and isotope effect in the blue-green absorption bands of Li, A., 649.
- Harvey, A. H., and Bowen Research Corporation, desiccating apparatus, (P.), B., 590.
- Harvey, C. O. See Francis, A. G.
- Harvey, E. H., transmission spectrum of mercurochrome, A., 1089.
- Harvey, E. H., and Schuette, H. A., the sulphur monochloride reaction of fatty oils, B., 248.
- Harvey, J., Heilbron, J. M., and Wilkinson, D. G., synthesis of alkyl-naphthalenes. I. 1-Methyl-5-, -6-, and -7-ethylnaphthalenes, A., 593.
- Harvey, M. T., and Harvel Corporation, rubber-like substance from cashew-nut-shell oil, (P.), B., 918*.
- Harvey, R. B., use of dyes for the localisation of transpiration over the leaf surface, A., 648.
- Harvey, W. E., zinc as a protective coating against corrosion fatigue in steel, B., 910.
- Harvey Holford Separators, Ltd. See Holford, H. J.
- Harwood, H. F. See Hume, W. F.
- Harwood, S. D. F., and Martin, H., changes in the carbohydrate constituents and feeding value of mangolds from October to March, B., 475.
- Harzer Achsenwerke Ges.m.b.H. Bornum am Harz, and Ahrens, F., coating of metal surfaces with rubber, (P.), B., 206.
- Harzer Achsenwerke Ges.m.b.H. See also Ahrens, F.
- Harzstein, N. See Saslavsky, A.
- Hasama, B., significance of chemical configuration for the pharmacological action of adrenal-like compounds, A., 1472.
- Hasbrouck, L. B. See Eclipse Textile Devices, Inc.
- Haschimoto, U. See Körber, F.
- Hase, R., [pyrometer] device for measuring the temperature of hot fluids, (P.), B., 696*.
- Hasegawa, K., and Hori, S., electrode potentials of iron and steel in distilled, tap, and sea water, A., 1123.
- corrosion tests of iron and steel in distilled, tap, and sea water, B., 910.
- Hasegawa, T., effect of phenol and some of its derivatives on muscle action, A., 1617.
- Haselhoff, E., Haun, F., and Elbert, W., I. Effect [on crops] of yard manure and "huminit" in comparison with mineral fertilisers. II. Composition of some green fodders and green manuring plants. III. Effect of chromium on plant growth. IV. Effect of arsenic on plant growth, B., 1166.
- Haseman, J. D., alleged catalytic action of fuller's earth on colouring matter in oils, B., 46.
- Hasenbäumer, J., and Balks, R., content and solubility of potash and phosphates in surface and sub-soils of various types, B., 579.
- Hasenbäumer, J. See also König, J.
- Hashi, K., deodorisation of fish oils, B., 430.
- Hashima, H. See Nishida, K.
- Hashimoto, S. See Kinugasa, S.
- Hashimoto, T., manufacture of toilet material, (P.), B., 122, 218, 588*.
- Haskelberg, L., preparation of glycerol esters of amino-acids, A., 328.
- Haslam, G. H., [adsorption] refrigerating apparatus, (P.), B., 540.
- Haslam, G. S., evaluation of the contrast-obliterating and brightening power of white pigments, B., 431.
- modification of the spinning-film hiding-power method [for paints], B., 917.
- Haslam, G. S., and Grady, L. D., *jun.*, measurement of the levelling properties of paints and enamels, B., 383.
- the Pfund glossmeter applied to paints and lacquers, B., 917.
- Haslam, G. S., and Hall, C. H., use of ultra-violet light in the microscopical measurement of particle size, A., 1115.
- Haslam, R. T. See Standard Oil Development Co.
- Haslam, W. H., apparatus for the treatment [sterilising and drying] of fish materials, (P.), B., 881.
- Haslam, W. H. See also Fidasco, Ltd.
- Haslett, D. See Field, C. H.
- Hasse, G. See Curtius, T.
- Hassel, O., electric moments, A., 1348.
- Hassel, O., and Kringstad, H., crystal structure of thallous hydrogen fluoride, A., 1099.
- Hassel, O., and Næshagen, E., dipole moments of organic molecules in benzene solution. II., III., and IV., A., 134, 409, 1347.
- dielectric constants of solutions of oximes and ketones in benzene; dipole moment of benzaldoxime O-methyl ether, acetophenone, and benzophenone, A., 275.
- variation of the electrical moments of "flexible" molecules with temperature, A., 1093.
- Hassel, O., and Uhl, A. H., determination of dipole moments in polar solvents, A., 523.
- mutual behaviour of two kinds of polar molecules in benzene solution and the applicability of dipole liquids in the determination of electric moments, A., 979.
- Hassel, O. See also Eide, A. E.
- Hasselbach, A., and Polysius, G., refractory material, (P.), B., 241*.
- Hasselbach, A. See also I. G. Farbenind. A.-G.
- Hasselström, T. See Bogert, M. T.
- Hassenforderer & Cie., reconditioning of steel cutting-tools, (P.); B., 288.
- Hasskó, A., action of ultra-violet light on complement, amboceptor, agglutinin, the Wassermann reaction, and the precipitinogenic property of the serum, A., 1608.
- Hassler, C., disintegration of glass by means of compressed steam, B., 663.
- Hastings, A. B. See Sendroy, J., *jun.*
- Hastings, E. G. See Thornton, H. R.
- Hastings, H. E. See Kodak, Ltd.
- Hastings, J. J. II. See Walker, T. K.
- Hastings, R. J. See Newton, W.
- Hatakeyama, T., egg-lecithin, A., 631.
- relation of bile acids to carbohydrate metabolism. VII. Gaseous metabolism, A., 812.
- Hatch, T., and Choate, S. P., statistical description of the size properties of non-uniform particulate substances, B., 397.
- Hatcher, W. H., and Hill, A. C., hydrogen peroxide as an oxidising agent in acid solution. X., A., 548.
- Hatcher, W. H., and Mueller, W. H., iodometric determination of organic compounds, A., 324.
- oxidation of dibasic acids, A., 1558.
- Hatcher, W. H., and Sturrock, M. G., applicability of the quinhydrone electrode to unsaturated acids, A., 1272.
- influence of hydrogen ions on the Fenton reaction, A., 1530.
- Hatfield, W. D., foaming and sludge digestion in Imhoff tanks, B., 442.
- beer-slop waste from corn-mash distillation [in butyl alcohol manufacture], B., 480.
- Hatfield, W. H., steel ingots, B., 286.
- permanence of dimensions [of steel] under stress at elevated temperatures, B., 1070.
- Hatfield, W. H., and Green, H., rendering austenitic nickel-chromium steels non-corrodible, (P.), B., 952.
- Hatschek, E., gas bubbles in isotropic and deformed gelatin gels, A., 33.
- camphorylphenylthiosemicarbazide gel, A., 693.
- Hatta, S., humidity chart for use with combustion gas [dryers], B., 489.
- Hatterer, C. See Terroine, E. F.
- Hattiangadi, R. R. See Prasad, M.
- Hattori, D., cause of quenching deformation in tool steels, B., 421.
- Hattori, S., corylopsin, a crystalline constituent of the bark of *Corylopsis spicata*, A., 383.
- Hattori, S. See also Nagai, W.
- Hanenschild, A. See Schwenk, E.
- Hang, J. S. See Humphreys & Glasgow, Ltd.
- Hangaard, G., and Johnson, A. H., fractionation of gliadin, A., 1459.
- Hauge, S. M., inheritance of vitamin-A in maize. II. Vitamin-A in hybrid red maize, A., 647.
- Hauge, S. M., and Trost, J. F., inheritance of vitamin-A in maize. III. Vitamin-A content in relation to yellow endosperm, A., 647.

- Haugen, H. W. See Harris, E. E.
 Haught, J. W. See Jacobson, C. A.
 Haun, F. See Haselhoff, B.
 Haun, J. C., and Merrill Co., recovery of cyanogen compounds from gases, (P.), B., 1140.
 Haupt, See Trnka, R.
 Haupt, L. L. See Losey, A.
 Hauptmann, H. See Straus, F.
 Hauptmeyer, F., articles of high resistance to wear, well polishable, and neutral to chemical agents, (P.), B., 617, 720.
 Haurowitz, F., blood pigment. XI. Human hemoglobin, A., 489.
 blood-pigment. XII. Tryptic digestion of blood-pigment, A., 942.
 anomaly of copper metabolism, A., 1311.
 Haurowitz, F. See also Breinl, F., and Reiss, M.
 Hauschka, R., and Ricardo, G., manufacture of lanolin-like compositions, (P.), B., 156.
 Hausen, J., porous masses for the storage of explosive gases or fuels, (P.), B., 92.
 Hauser, C. R., preparation of primary amines from aldehydes and monochloroamine, A., 775.
 Hauser, C. R., and Hauser, M. L., chloroimines. I. *o*-Chlorobenzylidenechloroimine and anisylidenechloroimine, A., 916.
 Hauser, C. R., Hauser, M. L., and Gillaspie, A., chloroimines. II. Negatively-substituted aromatic *N*-chloroaldimines, A., 1582.
 Hauser, E., combustion at a gasoline burner in a confined atmosphere, B., 976.
 Hauser, E. A., micro-manipulations with [rubber] latex in the dark field, B., 1121.
 Hauser, E. A. See also Feuchter, H.
 Hauser, M. L. See Hauser, C. R.
 Hausmann, W., and Krumpel, O., transparency of gypsum and mica in the ultra-violet, A., 1089.
 Haussmann, A. C. See Bullard, R. H.
 Hausswald, R. See Foerster, F.
 Hausswald, W., brown coal as a raw material for gas production, B., 592.
 Hausswald, W., and Mildner, E., rotary retort for low-temperature carbonisation, (P.), B., 751.
 Havemann, H. See Skita, A.
 Haven, W. A., blast-furnace operation, (P.), B., 244.
 Havenhill, L. D., standardisation and deterioration of rennin, B., 963.
 Havens, G. C. See Carman, J. S.
 Havestadt, L., and Fricke, R., dielectric behaviour of hydrated oxides, A., 665.
 Havlicek, J., critical point of water, A., 283.
 kinetics of the recombination of atomic hydrogen, A., 1000.
 Hawenta-Platten-Ges.m.b.H., and Fricke, A., production of well-adhering coatings on asbestos-cement-slate plates, (P.), B., 770.
 Hawenta-Platten-Ges.m.b.H. See also Fricke, A.
 Hawesson, J., influence of rennin on the ripening of cheese; Russian Limburg cheese, B., 346.
 Hawkes, L., partly fused quartz-felspar-rock; glomero-granular texture, A., 189.
 Hawkins, A. T., preventing moisture deposition on glass or other transparent surfaces in refrigerated cabinets, (P.), B., 171.
 Hawkins, F. S., and Partington, J. R., effect of one salt on solubility of another in ethyl alcohol solution. IV., A., 406.
 Hawkins, J. A. See Van Slyke, D. D.
 Hawkins, W. J., and American Machine & Foundry Co., metal [lead] foil, (P.), B., 1077.
 Hawks, J. E. See Wang, C. C.
 Hawley, C. G., and Centrifex Corporation, gas cleaner, (P.), B., 538.
 separator, (P.), B., 693.
 line filter, (P.), B., 971.
 Hawley, J. E., generation of oil in rocks by shearing processes, B., 595.
 Hawley, T. G., jun., and Johnson, T. B., isoelectric point of silk fibroin, B., 412.
 Hawlik, H., rapid determination of cellulose in viscose, B., 1145.
 Haworth, E. F. See Dilling, W. J.
 Haworth, R. D. See Clemo, G. R.
 Haworth, W. N., structure of carbohydrates and their optical rotatory power, A., 1273.
 Haworth, W. N., Hirst, E. L., and Miller, E. J., development of a novel form of stereoisomerism in the sugar series. I. Third variety of triacetylmethylrhamnoside, A., 68.
 Haworth, W. N., Hirst, E. L., and Teece, E. G., conversion of 1:2:3:4-tetra-acetyl- β -D-glucose into 2:3:4:6-tetra-acetyl- β -methylglucoside, A., 1023.
 Haworth, W. N., Hirst, E. L., and Thomas, H. A., existence of the cellobiose residue in cellulose, A., 1415.
 Haworth, W. N., Hirst, E. L., and Webb, J. I., polysaccharides. V. Glycogen, A., 72.
 crystalline α -methylmannofuranoside (γ -methylmannoside). II., A., 748.
 Haworth, W. N., and Porter, C. R., isolation of crystalline α - and β -ethylglucufuranosides (γ -ethylglucosides) and other crystalline derivatives of glucufuranose, A., 196.
 sugar carbonates. IV. Dicarbonates of dextrose, laevulose, mannose, galactose, and arabinose, A., 326.
 crystalline α -methylmannofuranoside (γ -methylmannoside). I., A., 748.
 Haworth, W. N. See also Bott, H. G., and Carter, S. R.
 Hawthorn, S. K., oxide purification [of coal gas], B., 495.
 Hay, G. S., and Flintkote Roads, Inc., bituminous emulsions, (P.), B., 1112*.
 Hay, J. T., corrosion-resistant ferrous alloy, (P.), B., 288.
 Hayasaka, E., disturbance of lactic acid synthesis in adrenalectomized animals, A., 1610.
 Hayashi, K., concentration of urea in normal human blood with special reference to the question of blood-corpuscles containing urea, A., 1055.
 Hayashi, M., benzophenone derivatives. I. Chlorohydroxybenzophenones. II. Chlorohydroxymethylbenzophenones. III. Action of phosphorus pentachloride on anisole, A., 89.
 new isomerism of halogenohydroxybenzoyltoluic acids. II. 2-(5'-Chloro-2'-hydroxybenzoyl)-5(4?)-methylbenzoic acid. III. 2-(3'-Chloro-2'-hydroxybenzoyl)-3(or 6)-methylbenzoic acid. IV. 2-(4'-Chloro-2'-hydroxybenzoyl)-3(or 6)-methylbenzoic acid and 2-(2'-chloro-4'-hydroxybenzoyl)-3(or 6)-methylbenzoic acid, A., 1183.
 Hayashi, T. See Kaneko, H.
 Hayashida, Y., [baffles for flues of boiler] furnaces, (P.), B., 225.
 Hayek, E. See Klemenc, A.
 Hayes, C. See Dunlop Rubber Co., Ltd.
 Hayes, F. R., metabolism of developing salmon eggs. I. Significance of hatching and rôle of water in development. II. Chemical changes during development, A., 952.
 Hayes, (Miss) N. See Pringsheim, H.
 Hayes, R. S. See Friend, J. A. N.
 Hayes-Gratz, E. V., electrodeposition of chromium, (P.), B., 1116.
 Hayman, D. See Avery, S.
 Hayn, G., [multi-burner] coal-dust furnaces [for locomotives], (P.), B., 408.
 Haynes, R., detection of oil in twigs, A., 385.
 Haynes Stellite Co. See Wissler, W. A.
 Haynn, R. See Gen. Aniline Works, Inc.
 Hays, (Miss) M. B., absorption spectrum of bromine vapour between 6117 and 6309 Å., A., 510.
 Hayward, C. R. See Smith, C. S.
 Hazard, R., pharmacology of tropine; relationship between its secondary alcoholic group and its cardiovascular action, A., 1062.
 Hazard, R., and Pelonovski, Michel, physiological rôle of the tertiary amino-group in the pyrrolidine-piperidine nucleus; importance of isomerism, A., 370.
 Hazel, F., and Sorum, C. H., preparation of negative colloidal ferric oxide by hydrolysis of Prussian-blue, A., 690.
 Hazeley, E., Morton, E. A., and Courtaulds, Ltd., manufacture of artificial threads, filaments, ribbons, etc., (P.), B., 100*.
 Hazeley, E. See also Hegan, H. J.
 Hazell, E. See Morgan & Wright, and Naugatuck Chem. Co.
 Hazen, R. K. See Corson, B. B.
 Hazle, A. J., jun., and Blatchford Calf Meal Co., grinding mill, (P.), B., 537.
 Hazlehurst, A. N., electric storage batteries or accumulators, (P.), B., 22.
 primary electric batteries, (P.), B., 336.
 Hazlehurst, H. E., and Margetson, O., pulverised or powdered fuel burners, (P.), B., 359.
 Head, H. C., apparatus for regulating, varying, or controlling the flow of solid, gaseous, or liquid media, (P.), B., 491.
 Head, P. H., strengthened glass, (P.), B., 103.
 Headlee, T. J., and Ginsburg, J. M., combined sprays for destroying the over-wintering eggs of the European red mite and apple aphids at the delayed dormant period of the apple tree, B., 342.

- Headrick, L. B., and Fox, G. W., fourth positive bands of carbon monoxide, A., 838.
- Healy, J. J., *jun.*, purifying [pyrites] burner gases with electrostatic precipitators, B., 824.
- Healy, L. J. D., and Fisk Rubber Co., electro-paint, (P.), B., 571.
- Heaps, C. W., and Bryan, A. B., discontinuous changes in length accompanying the Barkhausen effect in nickel, A., 1243.
- Heard, J. F. See Keys, D. A.
- Heath, A., plaster [of Paris] and mould-making, B., 990.
- Heath, S. B., and Dow Chemical Co., manufacture of magnesium arsenate, (P.), B., 188.
- Heath, S. B., Keller, M. O., and Dow Chemical Co., manufacture of cuprous compounds, (P.), B., 1109.
- Heath, W. P., manufacture of carbon dioxide and Epsom salts, B., 659.
- Heathcoat, F. See Bennett, G. M.
- Hebberling, H., "active oxygen" as anti-rust agent, B., 468.
- Hebbs, L. G. S. See Cross, C. R.
- Hebden, J. C., and Hebden Sugar Process Corporation, purification of vegetable oils, (P.), B., 778.
- Hebden Sugar Process Corporation. See Hebden, J. C.
- Heber, K. See Bauer, K. H.
- Heberlein, G., and Heberlein Patent Corporation, production of pattern effects upon textile goods, (P.), B., 140*.
- Heberlein & Co. Akt.-Ges., manufacture of acetylcellulose, (P.), B., 184.
- producing [from animal proteins] solutions adapted to be spun, (P.), B., 813.
- production of effects on vegetable yarns and fabrics, (P.), B., 815.
- manufacture of acetylated cellulose fibres, (P.), B., 858.
- improvement of fabrics containing vegetable fibre, (P.), B., 1063.
- Heberlein Patent Corporation. See Heberlein, G.
- Hebler, F., manufacture of coated [calcium] phosphide, (P.), B., 557*.
- Hechenbleikner, I., Titlestad, N., and Chemical Construction Co., ammonia-oxidising method, (P.), B., 1026.
- Hecht, O. See Ohle, H.
- Heck, L. L. See Gilman, H.
- Heckert, E., mine-gas detector, (P.), B., 805.
- Hedfeld, K., and Mecke, R., rotation oscillation spectrum of acetylene. I. Band analysis, A., 1235.
- Hedges, E. S., formation of periodic structures by salting-out and by coagulation, A., 158.
- action of nitric acid on some metals, A., 549.
- theory of the formation of periodic structures, A., 1117.
- formation of periodic structures, A., 1261.
- Hedgepeth, L. L., and Olsen, W. C., purifying water, (P.), B., 1094.
- Hedin, S. G., proteolytic enzymes of the spleen, A., 957.
- Hedman, N. O., Näslund, N. R., and Larsson, J. D., hardening of copper, (P.), B., 773.
- Hedrich, G., physico-chemical problems in the glue and gelatin industry, B., 574.
- Hedvall, J. A., loosening of the [crystal] lattice and reactivity in the solid state, A., 1503.
- Hedvall, J. A., and Andersson, W., influence of foreign substances on the reactivity of crystals, A., 1381.
- Hedvall, J. A., and Sjöman, P., reactions between ferric oxide and silica, A., 559.
- Heenan, J. N. D., [boiler] furnaces, (P.), B., 352.
- Heenan & Froude, Ltd., and Walker, G. H., heat exchangers, (P.), B., 1.
- heat-exchanging apparatus, (P.), B., 931.
- Heering, H., rubber as material for electrotechnical work, B., 728.
- Heesterman, J. E., volumetric determination of fatty acids in soaps, etc., B., 871.
- Hefferman, P., colloidal theory of silicosis, A., 1208.
- Heffernan, T. D. See Anderson, J.
- Hefke, H. W. See Yater, W. M.
- Hefter, A. I. See Karatygin, V. M.
- Hefter, J. See Embden, G., and Rona, P.
- Hefter, O. See Berl, E.
- Hefli, F., production of a barbituric acid compound, (P.), B., 264, 586*.
- Hegan, C. P. See Reed, W. M.
- Hegan, H. J., Hazeley, E., and Courtaulds, Ltd., apparatus for manufacture of artificial filaments, threads, etc., (P.), B., 1106*.
- Hegan, H. J. See also Courtaulds, Ltd.
- Hegel, G. W. See Gen. Electric Co.
- Hegeman, J. F. See Russell, Arthur.
- Heblgans, F., dependence of some electrical and electro-optical constants of nitrobenzene and nitrotoluenes on the degree of purity, A., 142.
- Heibig, E., dialysing apparatus, (P.), B., 1009*.
- Heibig, E. See also Filtrés Philippe.
- Heide, C. von der, detection of fruit wine in grape wine, B., 926.
- Heide, F., mineralogy and petrography of the Rhön Mts., A., 733.
- Heidelberger, M., and Kendall, F. E., crystalline aldobionic acid from gum arabic, A., 66.
- displacement of toxin from neutralised toxin-antitoxin mixtures by "toxoid" or anatoxin, A., 1220.
- amount of circulating precipitin following the injection of a soluble antigen, A., 1608.
- protein-antibody system, A., 1608.
- Heidenhain, J., preparation of transparent pictures, (P.), B., 794.
- Heidenhain, W., apparatus for hardening products of iron, steel, and other ferromagnetic materials, (P.), B., 334*.
- Heidenreich, R. See Gen. Aniline Works, Inc.
- Heidt, L. J., and Daniels, F., capillary mercury-vapour lamp, A., 884.
- Heiduschka, A., determination of nicotine in tobacco and [tobacco] smoke, B., 630.
- Heiduschka, A., and Agsten, R., babassu fat, B., 619.
- Heiduschka, A., and Kirsten, G., castor oil and ricinoleic acid, B., 382.
- Heiduschka, A., and Müller, Joh., laurel fat (*Oleum lauri*), B., 291.
- fat analysis, B., 382.
- Heiduschka, A., and Muth, F., nicotine content of tobacco. IV., B., 217.
- Heiduschka, A., and Neumann, G., determination of water and fats in materials rich in fats by means of trichloroethylene, B., 517.
- Heiduschka, A., and Pyriki, C., citric acid content of grapes at various degrees of ripeness and the determination of citric acid, B., 343.
- Heiduschka, A., and Wiesemann, C., composition of almond oil; comparison of almond oil and apricot-kernel oil, B., 674.
- Heijkenskjöld, G. O. W., and Aktiebolaget Båsta, preparation of yeast, (P.), B., 1088.
- Heilbron, I. M., and Spring, F. S., sterol group. VIII. Reactions of isocrosterol, A., 210.
- colour reactions and absorption spectra of sterols in relation to structure, A., 597.
- Heilbron, I. M. See also Harvey, J., and Morton, R. A.
- Heilbrunn, L. V., colloid chemistry of protoplasm. V. Surface precipitation reaction of living cells, A., 811.
- Heiligman, H. A. See Seil, G. E.
- Heilmann, R. See Locquin, R.
- Heilmeyer, L., and Krebs, W., determination of bilirubin in blood-serum, A., 1200.
- determination of uric acid in blood-serum, A., 1201.
- Heim, D. C., mixing mill, (P.), B., 268.
- Heim, M., manufacture of dry adhesives soluble in cold water, (P.), B., 71.
- Heim, O., determination of cobalt in driers, japans, and alloys, B., 383.
- Heimann, H. See Caro, N., Franck, H. H., and I. G. Farbenind. A.-G.
- Heimberg-Krauss, M. See Pollak, J.
- Hein, F. [with Farl, H., and Bär, H.], action of chromium halides on ethyl ether and complex derivatives of chromium dihalide alkoxides, A., 1019.
- Hein, F., and Schramm, H., zinc ethyl, A., 1357.
- Hein & Co., tanning of hides, (P.), B., 523.
- Heindl, R. A., and Pendergast, W. L., progress report on investigation of fireclay bricks and the clays used in their preparation, B., 59*.
- fireclays. II. Some fundamental properties at several temperatures, B., 1111.
- Heine, H. G., and Krupp Grusonwerk Akt.-Ges., F., treatment of ores and metallurgical products, (P.), B., 17.
- Heinicke, H., determination of moisture in coal and similar substances, (P.), B., 311.
- Heiningen, J. van. See Jorissen, W. P.
- Heinlein, C. P., simple aqueous electrode, A., 1548.
- Heinlein, H., sulphate content of amyloid organs, A., 633.
- Heinrich, A., prevention of scale deposits in boilers, (P.), B., 222.
- Heinrich, R. See Siemens-Schuckertwerke A.-G.

- Heintz, *L.*, calculation of the original gravity of beer, *B.*, 117.
 Heintze, *S. G.*, and Crowther, *E. M.*, error in soil reaction determinations by the quinhydrone method, *B.*, 256.
 Heinz, *H.* See Lorenz, *R.*
 Heinz, *Herbert*, origin, weathering, and artificial colouring of agate, *A.*, 1016.
 Heinz, *Herbert*. See also Linck, *G.*
 Heinze Maschinenfabrik Akt.-Ges., *C.* See Kraney, *C. F.*
 Heisenberg, *W.*, energy [of electric inertia] of the electron, *A.*, 1493.
 Heisig, *G. B.* See Chelberg, *R.*, and Livingston, *R.*
 Heisig, *T. C.*, and Galena-Signal Oil Co., refining of oil, (*P.*), *B.*, 181.
 Heissdampf-Ges.m.b.H. See Uhde, *R.*
 Heitler, *W.*, quantum theory of valency, *A.*, 18.
 quantum-mechanical theory of the homopolar linking, *A.*, 525.
 can light nuclei exist in different quantum states? *A.*, 654.
 quantum theory of homopolar compounds, *A.*, 1349.
 Heitmann, *W. S.*, manufacture of tracer compositions, (*P.*), *B.*, 687.
 Heizmann, *J.*, heat exchanger, (*P.*), *B.*, 747*.
 Hejninian, *L. M.* See Daniels, *A. L.*
 Heki, *M.*, anæmic lipæmia, *A.*, 1309.
 Heki, *M.* See also Osato, *S.*
 Hektoen, *L.* See Boor, *A. K.*
 Helberger, *H.* See Fischer, *Hans.*
 Helbig, *A. B.*, burning of lime, etc., with powdered fuel, (*P.*), *B.*, 327.
 Holbig, *M.*, and Jung, *E.*, decomposition of forest litter, *B.*, 473.
 Helbronner, *A.*, and Dutt, *E.*, manufacture of electric batteries, (*P.*), *B.*, 153.
 electric cell, (*P.*), *B.*, 1078*.
 Helbronner, *A.* See also Benoit, *C.*
 Hele-Shaw, *H. S.*, separating out and removing matter suspended in a fluid, (*P.*), *B.*, 933*.
 Hele-Shaw, *H. S.*, and Pickard, *J. A.*, edge filtration, (*P.*), *B.*, 224*.
 Helfenstein, *A.* See Karrer, *P.*
 Helferich, *B.*, and Böttger, *S.*, interaction of hydrogen fluoride with cellulose, *A.*, 72.
 Helferich, *B.*, Bohn, *E.*, and Winkler, *S.*, unsaturated derivatives of gentiobiose and cellobiose, *A.*, 748.
 Helferich, *B.*, and Brederick, *H.*, emulsin. III, *A.*, 1216.
 Helferich, *B.*, and Gootz, *R.*, 1-acyl derivatives of glucose; synthesis of α -benzylglucoside, *A.*, 69.
 Helferich, *B.*, and Müller, *Alexander*, methylglucoside of a new anhydro-sugar; acyl migration with partly acylated dextrose, *A.*, 1411.
 Helfrich, *O. B.* See Kessler, *J. M.*
 Helipecs, Ltd., and McDougall, *R.*, grinding bodies for tube or drum mills, (*P.*), *B.*, 537, 692.
 Hell, *F.* See Giese, *M.*
 Hellat, *W.*, adsorption of salts from non-aqueous solutions by artificial silk (cellulose hydrate), *A.*, 538.
 Hellbaoh, *R.* See May, *O. E.*
 Heller, *E.*, Killiches, *W.*, and Drinker, *C. K.*, evaluation of 5% and 7% carbon dioxide mixtures as respiratory stimulants, *A.*, 101.
 Heller, *G.* [with Mecke, *R.*], rearrangement of quinazolones into triazole derivatives, *A.*, 792.
 Heller, *H.*, substances in secretin extract influencing blood-sugar. I, *A.*, 117.
 Heller, *H.* See also Slotta, *K. H.*
 Heller, *J.*, and Moktowska, *A.*, metamorphosis of insects. VII. Composition of the blood of larvæ of *Deilephila euphorbiæ*; changes in the composition during metamorphosis, *A.*, 809.
 Heller, *K.*, indication of the sensitiveness of analytical reactions, *A.*, 879.
 Heller, *K.* [with Fleischhans, *Z.*], systematic spot-analysis. II, *A.*, 443.
 Heller, *K.* [with Willingshofer, *K.*, and Sadrawetz, *B.*], determination of halogen by Gasparini's method. III, *A.*, 310.
 Heller, *M.*, generation of water-gas from powdered fuel, (*P.*), *B.*, 449.
 Heller, *M.* (Minsk), and Fesehtschenko, *G.*, action of thymus-gland extract on yeast-cells, *A.*, 504.
 Heller, *O.* See Bamag-Meguain, *A.-G.*
 Heller, *V. G.*, and Caskey, *C.*, determination of vitamin-*D*, *A.*, 506.
 Heller, *V. G.*, and Larwood, *C. H.*, saline drinking water, *A.*, 808.
 Heller, *W.*, special cases and transition phenomena in the thixotropy of ferric oxide sols, *A.*, 417.
 Heller, *W.* See also Zocher, *H.*
 Hellerud, *R.* See Bergsvik, *A.*, and Langfeldt, *E.*
 Hellmers, *H. D.*, and West End Chemical Co., recovering borax from brine, (*P.*), *B.*, 57.
 Hellriegel, *E.* See Traube, *W.*
 Hellriegel, *W.*, structural principles of compounds of boron and hydrogen, *A.*, 137.
 Hellström, *H.* See Euler, *H. von.*
 Hellthaler, *T.* See also Metzger, *J.*, and Riebeck'sche Montanwerke Akt.-Ges., *A.*
 Hellthaler, *T.*, and Riebeck'sche Montanwerke Akt.-Ges., *A.*, bleaching of montan wax, (*P.*), *B.*, 753*.
 Helmer, *L.*, apparatus for [cooling and] conditioning air, (*P.*), *B.*, 127.
 Helms, *W.* See Honcamp, *F.*
 Heltweg, *H.*, process and machine for simultaneous dyeing and finishing using the same treating liquid, (*P.*), *B.*, 238.
 Helwig, *E. L.* See Hollander, *C. S.*
 Hemberg, *S. E.*, production of artificial cream, (*P.*), *B.*, 791.
 Hemingway, *A.*, and Peterson, *J. M.*, antidiuretic effect of the separated principles of the pituitary gland, *A.*, 117.
 Hemm, *C.* See Dunlop Rubber Co., Ltd., Macintosh & Co., Ltd., *C.*, and New Eccles Rubber Works, Ltd.
 Hemmälä, *E.* See Routala, *O.*
 Hempel, *E.* See Clar, *E.*
 Hempelmann, practical significance of Neubauer [soil] analyses; results from the experimental area of Krummhörn, *B.*, 208.
 Henbrey, *H. J.*, and Thornhill, *C. J. M.*, acid-resisting alloy, (*P.*), *B.*, 332.
 Hencky, *K.*, and Neubert, *P.*, photography of bodies radiating heat as a basis for photothermometry, *A.*, 717.
 Henderson, *A.*, and Roberts, *J.*, automatic pipette, *A.*, 186.
 Henderson, *G. G.* See Bell, *J.*
 Henderson, *J. A. R.* See Brit. Dyestuffs Corp., Ltd., and Callan, *T.*
 Henderson, *J. M.* See Burgess Battery Co.
 Henderson, *L. J.*, Bock, *A. V.*, Dill, *D. B.*, and Edwards, *H. T.*, blood as a physico-chemical system. IX. Carbon dioxide dissociation curves of oxygenated human blood, *A.*, 1053.
 Henderson, *L. J.* See also Bock, *A. V.*
 Henderson, *M. C.*, scattering of β -particles by light gases and the magnetic moment of the electron, *A.*, 130.
 Henderson, *V. E.*, and Lucas, *G. H. W.*, nitrous oxide for anaesthesia, *B.*, 945.
 Hendricks, *B. C.*, Dorsey, *J. H.*, Leroy, *R.*, and Moseley, *A. G.*, jun., modified vacuum-walled adiabatic calorimeter, *A.*, 447.
 Hendricks, *B. C.*, and Ralston, *R. R.*, permeability of hot metals to hydrogen, *A.*, 26.
 Hendricks, *S. B.*, molecular rotation in the solid state, *A.*, 1097.
 Hendricks, *S. B.*, and Fry, *W. H.*, X-ray and microscopical examinations of soil colloids, *B.*, 832.
 Hendricks, *S. B.* See also Emmett, *P. H.*
 Hendriks, *M. J.*, determination of total calcium content of blood-serum, *A.*, 236.
 Hendry, *D.*, manuring of paddy in Lower Burma, *B.*, 681.
 Hendry, *J. L.* See Cohn, *E. J.*
 Hendry, *W.*, and Johnson, *T. B.*, electrolytic separation of arginine and alanine, *A.*, 1563.
 Hene, *E.* See Stickstoffwerke Ges.m.b.H.
 Henesey, *F.* See Imperial Chem. Industries, Ltd.
 Henglein, *F. A.*, and Teichmann, *L.*, formation of iodates from iodides by molecular oxygen, *A.*, 722.
 Henglein, *F. A.* See also I. G. Farbenind. A.-G.
 Hengstenberg, *J.*, X-ray detection of the electrical polarisation of a crystal lattice, *A.*, 19.
 Hengstenberg, *J.*, and Mark, *H.*, shape and size of the cellulose and caoutchouc micelles, *A.*, 21.
 X-ray intensity measurements with deformed crystals, *A.*, 670.
 lattice structure of some simple sugars, *A.*, 983.
 Henkel & Co., G.m.b.H., manufacture of rinsing, grease-removing, and cleaning compositions, (*P.*), *B.*, 612.
 cleansing compositions, (*P.*), *B.*, 1029.
 Henke-Stark, *F.* See Stollé, *R.*
 Henle, *F.* See Gen. Aniline Works, Inc.
 Henley, *A. T.*, involution cultures of yeast. I, *A.*, 1218.
 Henley, (*Miss*) *R. V.*, preparation of diphenyl ethers, *A.*, 909.
 Henley, (*Miss*) *R. V.*, and Turner, *E. E.*, scission of diaryl ethers and related compounds by piperidine. III. Nitration of 2,4-dibromo-2',4'-dinitrodiphenyl ether and of 2,4-dibromophenyl *p*-toluenesulphonate and benzoate; chlorination and bromination of *m*-nitrophenol, *A.*, 907.

- Hennaut-Roland, (*Mme.*). See Timmermans, *J.*
- Henne, *A. L.* See Midgley, *T.*, *jun.*, and Shepard, *A. F.*
- Hennebutte, *H.* See Goutal, *E.*
- Henning, *C. I. B.* See Du Pont de Nemours & Co., *E. I.*
- Henning, *H. H.*, electric heating apparatus for liquids, (*P.*), *B.*, 427.
- Henning, *H. T.*, digestibility of crude fibre by hens, *A.*, 495.
- Henningsen, *C.* See Du Pont Rayon Co.
- Henri, *P.* See Harde, *E.*
- Henri, *V.*, existence of two limits of pre-dissociation in the nitrogen peroxide molecule and the heat of dissociation of oxygen, *A.*, 272.
- heat of dissociation of the oxygen molecule and energy of activation of the oxygen atom, *A.*, 295.
- dissociation energy of oxygen determined from the pre-dissociation of sulphur dioxide, *A.*, 388.
- [spectroscopes for] analysing gases or vapours, (*P.*), *B.*, 695.
- Henri, *V.*, and Howell, *O. R.*, structure and activation of the carbonyl chloride molecule. I. Introduction; predissociation of molecules. II. Raman spectrum of carbonyl chloride. III. Ultra-violet absorption spectrum of carbonyl chloride vapour, *A.*, 1088.
- Henrich, *F.*, and Fleischmann, *O.*, derivatives of cresoreinol [2:4-dihydroxytoluene], *A.*, 1035.
- Henrich, *R. C.* See Merrill, *H. B.*
- Henrion, *J.*, crystals of paratophan, *A.*, 983.
- Henriques, *V.*, and Roche, *A.*, intestinal elimination of iron in the dog, *A.*, 809.
- Henry, *D. C.* See Folley, *S. J.*
- Henry, *I. W.*, production, from hydrocarbon material, of gases or liquids of changed mol. wt., (*P.*), *B.*, 48*.
- Henry, *L. A. M.*, ionisation produced in the oxidation of nitric oxide, *A.*, 275.
- Henry, *P. S. H.* See Blackett, *P. M. S.*
- Henry, *R. A.*, preparation of coagulating sols, (*P.*), *B.*, 143.
- Henry, *T. A.*, and Sharp, *T. M.*, mercuration of some polyhydroxybenzaldehydes and their monomethyl ethers, *A.*, 1602.
- Henry, *T. A.* See also Goodson, *J. A.*
- Henry, *W. F.* See Rodebush, *W. H.*
- "Henry" Seifen-, Kerzen-, und Fettwarenfabrik G.m.b.H. See Zimmermann, *S.*
- Henschel, *G.* See I. G. Farbenind. A.-G.
- Hensel, *W. G.* See Pringsheim, *H.*
- Henshaw, *C. L.* See Duffendack, *O. S.*
- Henshaw, *C. R.* See Imperial Chem. Industries, Ltd.
- Henshaw, *D. M.*, and Holmes & Co., Ltd., *W. C.*, coolers or condensers for fuel gases, (*P.*), *B.*, 700.
- Henshaw, *D. M.* See also Cooper, *C.*, and Watson, *S. G.*
- Henshilwood, *A. B.* See Wilkinson, *E. J.*
- Hentrich, *W.* See Gen. Aniline Works, Inc.
- Hentschel, *E.*, transfer picture and its manufacture, (*P.*), *B.*, 1047.
- Hentschel, *H.*, and Schindel, *L.*, detection of ergosterol in human skin, *A.*, 1307.
- Henville, *D.*, solubility of sulphur, *B.*, 764.
- methylene-blue in tinned peas, *B.*, 1168.
- Henze, *M.*, action of methylglyoxal on acetoacetic acid. I., *A.*, 1022.
- Henze, *T. O.*, manufacture of safety glass, (*P.*), *B.*, 510.
- Henzi, *E.* See Ruggli, *P.*
- Hepburn, *G. A.* See Ripley, *L. B.*
- Hepburn, *T. F. G.*, determining the p_H of tan liquors by the hydrogen electrode, *B.*, 731.
- Hepner, *F.* See Beumer, *H.*
- Hepner, *J.*, and Wagner, *O.*, alteration of fatty acids in autolysis of the liver, *A.*, 1216.
- Hepp, *H.* See Ohle, *H.*
- Heppes, *J.* See Chem. Fabr. Heppes & Co., G.m.b.H.
- Heptinstall, *W. G.*, carbonising and briquetting Saskatchewan lignite, *B.*, 848.
- Hepworth, *F.*, apparatus for the transfer of heat, (*P.*), *B.*, 644.
- Hepworth, *H.* See Imperial Chem. Industries, Ltd.
- Heraeus Ges.m.b.H., *W. C.*, and Killins, *E.*, operation of tungsten- and molybdenum-resistance furnaces, (*P.*), *B.*, 200.
- Heraeus Ges.m.b.H., *W. C.*, and Kröner, *A.*, production of hollow bodies from silica and other refractory materials, (*P.*), *B.*, 820.
- Heraeus Vacuumsmelze Akt.-Ges., and Hiemenz, *H.*, electric [annealing] furnaces, (*P.*), *B.*, 200.
- Heraeus Vacuumsmelze Akt.-Ges., and Rohn, *W.*, induction furnaces heated by high-frequency coils, (*P.*), *B.*, 335.
- Herasymenko, *P.*, adsorption phenomena occurring during the anodic oxidation of formic acid, *A.*, 864.
- Herasymenko, *P.*, and Šlendyk, *I.*, hydrogen overvoltage and adsorption of ions, *A.*, 1125.
- Herasymenko, *P.*, and Tyvoňuk, *Z.*, rate of formation of fumaric acid in molten malic acid, *A.*, 425.
- Herbain, *M.* See Mascré, *M.*, and Olivier, *H. R.*
- Herberholz, *A.*, effect of various factors on the open-hearth steel process investigated by large-scale tests, *B.*, 146.
- Herbert, *F. K.*, and Bourne, *M. C.*, non-sugar reducing substances of human blood with special reference to glutathione, *A.*, 801.
- Herbert, *F. K.*, Bourne, *M. C.*, and Groen, *J.*, effect of glutathione on the determination of blood-sugars, *A.*, 801.
- Herbert, *J. B. M.*, sorption of gases on crystal faces, *A.*, 407.
- Herbert, *W.* See Berl, *E.*
- Herbst, *R. M.*, and Johnson, *T. B.*, hydantoins. XLIX. New rearrangement leading to the formation of 4-aminoglyoxaline derivatives, *A.*, 1446.
- Hercules Powder Co., and Johnston, *A. C.*, production of alkyl esters of resin acids, (*P.*), *B.*, 249.
- Hercules Powder Co., and Kennedy, *G. F.*, compound for impregnation of cable insulation, (*P.*), *B.*, 995.
- Hercules Powder Co., and Paul, *K. F.*, blasting detonators, (*P.*), *B.*, 1005.
- Hercules Powder Co., and Shapleigh, *J. H.*, [apparatus for absorption of oxides of nitrogen for] production of nitric acid, (*P.*), *B.*, 712.
- Hercules Powder Co., and Symmes, *E. M.*, blasting detonators, (*P.*), *B.*, 1005.
- Hercules Powder Co. See also Babcock, *L. W.*, Bennett, *J. L.*, Crater, *W. de C.*, Humphrey, *J. W.*, Johnston, *A. C.*, Kaiser, *H. E.*, Norman, *G. M.*, and Smith, *L. T.*
- Herd, *C. W.*, and Amos, *A. J.*, fat: its determination in wheat products, *B.*, 788.
- Herd, *M.*, rapid-limit test for detection and determination of sulphur dioxide in foods, *B.*, 215.
- Héring, *A. J. A.*, low-temperature distillation of fuels, (*P.*), *B.*, 176.
- distillation and utilisation of solid fuels, (*P.*), *B.*, 448.
- Hereward, *H. W.* See Soc. des Usines Chim. Rhône-Poulenc, and Thomas, *J.*
- Heribert, *H.*, simple system of the elements, *A.*, 1341.
- Hering, *K.*, preservation of ox blood, *A.*, 358.
- rapid evaluation of fluid extract of ergot, *B.*, 217.
- Heringa, *G. C.*, and Kempe Valk, *S. H. van*, fibrillar structures in the albuminous layer of the egg of the fowl, *A.*, 1307.
- Heringa, *J. A.* See Naaml. Venn. Neckar Wasserreiner Maats.
- Hérissey, *H.*, and Cheymol, *J.*, vicioside (vicin), *A.*, 1274.
- Herites, *J.*, minium, *B.*, 676.
- Herke, *A.*, amelioration of lime- and soda-containing Szik soils, *B.*, 253.
- Herles, *F.*, determination of the sugar content of carbonatation scums, *B.*, 525.
- accurate and rapid determination of sugar in beet slices by means of fine pulp obtained by the Herles press, *B.*, 1125.
- Herlesová, *M.*, influence of some nitrogenous substances on the determination of invert sugar in sugar-factory products, *B.*, 76.
- formation of reducing substances on heating alkaline sucrose solutions, and their bearing on analysis, *B.*, 76.
- Herlinger, *E.* See Eitel, *W.*
- Hermann, *C.*, systematic structure theory. II.-IV., *A.*, 21.
- Hermann, *C.* See also Ehrenberg, *W.*
- Hermann, *G.* See Klein, *W.*
- Hermann, *H.*, Caujolle, *E.*, and Jourdan, *F.*, elimination of alkaloids and genalkaloids in the bile, *A.*, 247.
- Hermann, *S.*, production of gluconic and ketogluconic acids by *Bacterium gluconicum*, *B. xylinum*, and *B. xylinoides*, *A.*, 114.
- pharmacology of [d]-gluconic acid: effect of free acids on the organism. I., II., and III., *A.*, 1617.
- Hermano, *A. J.*, vitamin contents of Philippine foods. I. Vitamins-A and -B in *Basella rubra*, *Capsicum frutescens*, and *Vigna sinensis*, *B.*, 638.
- Herminghaus & Co. G.m.b.H., and Rathert, *H.*, treatment of artificial fibres with liquids, (*P.*), *B.*, 139.
- Hermite, *E.* See Gugliamelli, *L. C.*
- Hermisdorf, *A.*, preparation of oil paints, (*P.*), *B.*, 623.
- Hermisdorf-Schomburg Isolatoren Gesellschaft, manufacture of ceramic bodies [from strands], (*P.*), *B.*, 948.
- Hernández, *M. A.* See Tapia, *E.*

- Hernette, A. See Sanfourche, A.
Hernler, F., isomeric 1-nitro- and 1-amino-phenyl-3,5-dimethyl-1,2,4-triazoles and their salts, A., 792.
Hernler, F., and Philippi, E., elementary composition of crystallised oxyhaemocyanin from *Helix pomatia*, A., 1461.
Hernler, F. See also Lindner, J., and Philippi, E.
Herpen, A. T., and Schütz, E., method of heat exchange, particularly for steam generators, (P.), B., 40.
Herr, B. M. See Harris, E. H.
Herre, R., eruptive rocks of the Oberwiesenthal, Erzgebirge, A., 1016.
Herreid, E. O. See Petersen, W. E.
Herren, W. T. See Otis, S.
Herrera, J. J., nickel and cobalt nitrides, A., 1009.
Herrick, H. T. See May, O. E.
Herring, F. W. See Hulbert, R.
Herrington, B. L. See Whitaker, R.
Herrmann, E. F. See Allen, C. F. H.
Herrmann, G., and Zerzog, L., treatment of steel castings or other metals, (P.), B., 379.
Herrmann, J., Franzen, B. G., Hubbard, L. MacB., and Zacharias, E. R., reduction of [iron] ores, (P.), B., 616.
Herrmann, K., and Ilge, W., X-ray study of tetramethylammonium perchlorate and permanganate, A., 528.
Herrmann, K. See also Abitz, W., Alexander, E., and Büsser, W.
Herrmann, L., fodder and quality of milk in meadow fertilisation with calcium cyanamide, B., 964.
Herrmann, O. See Abderhalden, E.
Herrmann, R. See Mach, F.
Herrmann, W. O., Baum, E., and Consortium für Elektrochemische Industrie, preparation of condensation products of ethyl alcohol, (P.), B., 550*.
Herrmann, W. O., Deutsch, H., and Consortium für Elektrochemische Industrie, manufacture of acetaldehyde, (P.), B., 652*.
Herrmann, Z., separation of calcium and magnesium by the oxalate method, A., 52.
structure of strontium chloride hexahydrate, A., 528.
Herrmann, Z. See also Hüttig, G. F.
Hersberg, W. See Grasselli Dyestuff Corp.
Hersehel, W. H., multiple-bulb consistometer, B., 589.
Hershey, E. See Polayes, S. H.
Hershey, J. W., components of air in relation to animal life, A., 941.
Hershey, M. S., manufacture of sugar, (P.), B., 343.
Hershman, P. R., Sethness, C. O., Sethness, C. H., and Rudnick, P., manufacture of [solid or semi-solid compositions comprising alkali] hypochlorite in colloidal form, (P.), B., 1109.
Herszfinkel, H., and Dobrovolska, H., disintegration of radioactive substances at very small concentrations and expulsion of α -particles from radioactive nuclei exposed to short-wave radiation, A., 976.
Hertel, E., subsidiary valency and crystal structure, A., 668.
Hertel, E., and Römer, G. H., concurrence between principal and subsidiary valency fields, A., 1574.
Hertel, O. H. See Greene, F. C.
Herthel, E. C., Pelzer, H. L., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 231.
manufacture of lubricating oils; refining of hydrocarbon oils [for production of lubricating oils], (P.), B., 1014.
refining of hydrocarbon oils, (P.), B., 1057.
Herthel, E. C., and Sinclair Refining Co., treatment of casing-head gasoline, (P.), B., 180.
cracking of hydrocarbons, (P.), B., 1013.
Herthel, E. C., Tift, T. de C., and Sinclair Refining Co., cracking of hydrocarbon oils, (P.), B., 1056.
Herthel, E. C. See also Isom, E. W., and Pelzer, H. L.
Hertlein, H. F., structure of the capillary layer in dipole liquids, A., 669.
Hertogh, (Fr.) W. See Smits, A.
Herty, C. H., jun., Christopher, C. F., and Stewart, R. W., physical chemistry of steel manufacture; deoxidation with silicon in the basic open-hearth process, B., 1155.
Herty, C. H., jun., Fitterer, G. R., and Byrns, G. N., deoxidisation of steel with aluminium, B., 909.
Herty, C. H., jun., Fitterer, G. R., and Marshall, W. E., jun., electrolytic determination of non-metallic inclusions in steel, B., 771.
Herty, C. H., jun., Gaines, J. M., jun., Freeman, H., and Lightner, M. W., determination of iron oxide in liquid steel, B., 771.
Hertz, G. L., and Naamlooze Vennootschap Philips' Gloeilampenfabrieken, electron-emitting cathode, (P.), B., 22*.
Hertz, W., state of calcium in serum, A., 491.
Hertz, W., and Hiebethal, F., internal friction of mixed solutions, A., 155.
Hertzell, E. A., clay sewer-pipe manufacture. IX. Method of checking flue-gas analyses and its application to ceramic kilns, B., 947.
Hertzell, E. A. See also Andrews, A. I.
Herviaux, J. See Vincent, F.
Herz, E. von, manufacture of artificial resins, (P.), B., 520.
initially detonating explosives and manufacture of detonating caps, (P.), B., 841.
Herz, E. von. See also Rathsburg, H.
Herz, R. See Gen. Aniline Works, Inc.
Herz, W., latent heat of vaporisation and surface tension, A., 24.
filled-space numbers [calculated] from dielectric constants and from refractive indices of gases, A., 136.
relation of the molecular volume at the m. p. to the ionic radii in alkali halides, A., 137.
solution volume and ionic radii of alkali halides, A., 526.
relation between the ionic radii and entropy and between the ionic radii and vibration frequency of alkali halides, A., 534.
temperature coefficients of density and viscosity, A., 534.
heats of combustion and mol. volumes of organic compounds, A., 544.
molecular volume, viscosity, and temperature relationships, A., 1093.
space-filling numbers of crystalline salts, A., 1100.
saturation pressure, A., 1104.
b. p. and vapour-pressure formulæ for organic compounds, A., 1104.
light refraction and mol. volume of crystalline salts, A., 1348.
heats of evaporation at the absolute zero, A., 1356.
molar volume relationships in liquid mixtures, A., 1509.
Herz, W., and Levi, M., solubility and adsorbability of benzoic acid and salicylic acid in presence of mixed organic solvents, A., 287.
Herz, W. See also Lorenz, R.
Herzberg, G., dissociation work of oxygen, A., 277.
the significance of diffuse molecular spectra (predissociation), A., 831.
new band system probably due to a molecule CP, A., 1074.
nitrogen isotope of mass 15, A., 1084.
predissociation of the phosphorus (P_2) molecule, A., 1227.
determination of heats of dissociation from predissociation spectra and the heat of dissociation of O_2 , A., 1524.
Herzberg, G., and Scheibe, G., absorption spectra of methyl halides and some other methyl compounds in the ultra-violet and in the Schumann region, A., 10, 661.
Herzfeld, E., and Kruger, R., action of sodium nitrite on blood-sugar, A., 360.
Herzfeld, E. See also Bennati, D., and Colloid-Chem. Forschungs A.-G.
Herzfeld, K. F., surface heat of charging, A., 391.
thermodynamics of binary systems, A., 697.
influence of adsorption on the growth of crystal surfaces, A., 991.
Herzfeld, K. F. See also Smallwood, H. M.
Herzner, R. A., physical chemistry of cultivated soils, B., 294.
physical chemistry of cultivated soils. II. Influence of manuring on the properties and adsorption potential of low-lying loams, B., 735.
Herzog, C. See Herzog, H.
Herzog, E., and Chaudron, G., alteration in mechanical properties of duralumin plates after corrosion by sea-water, B., 105.
mechanism of the corrosion of duralumin by sea-water, B., 615.
critical studies of corrosion tests, B., 1072.
Herzog, E. See also Brit. Thomson-Houston Co., Ltd.
Herzog, G., scattering of X-rays by gases. I. and II., A., 267, 391.
Herzog, H., and Herzog, C. (Herzog & Co., J.), multicolour photographs, (P.), B., 1093.
Herzog, H. See also Deuts. Pyrotechn. Fabr.
Herzog, R. O., calculation of mol. wts. of liquids from pressure coefficients, A., 675.
viscosity coefficient of a liquid, A., 1112.
deformation of high-molecular compounds, A., 1517.
Herzog, R. O., and Kratky, O., geometrical configuration of molecules showing a structural group periodicity, A., 1348, 1349.

- Herzog, R. O. See also Röhms & Haas A.-G.
- Herzog, W., employment of by-products of saccharin manufacture in photography and photometry, B., 167.
- destruction of vermin and weeds by means of the by-products of saccharin manufacture, B., 265.
- Herzog & Co., J. See Herzog, H.
- Hess, A. See Curtius, T.
- Hess, A. F., Weinstock, M., Rivkin, H., and Gross, J., lack of relationship between development and cure of rickets and concentration of inorganic phosphorus in the blood, A., 949.
- Hess, F. L., and Wells, R. C., samarskite from Petaca, New Mexico, A., 316.
- Hess, G. See Soc. of Chem. Ind. in Basle.
- Hess, K., characterisation of cellulose preparations, A., 198.
- cellulose. XXXVI. Determination of mol. wt. in glacial acetic acid, A., 456.
- solution of cellulose in copper ethylenediamine solution, A., 1416.
- views of the constitution of cellulose and their experimental foundations, A., 1562.
- swelling and solution processes of cellulose and its derivatives, B., 412.
- mechanism of the plasticising of natural cellulose fibres, B., 812.
- Hess, K., Dziengel, K., and Maass, H., action of hypioditic solution on cellulose preparations, A., 1416.
- Hess, K., and Trogus, C., X-ray fibre-diagrams of trimethyl-cellulose and cellulose triacetate. II., A., 1098.
- manufacture of ammoniacal copper cellulose solutions, (P.), B., 655, 858.
- higher orientation in cellulose materials. I., B., 1022.
- higher orientations in cellulose materials. II. X-ray diagram of paper, B., 1022.
- Hess, K., Trogus, C., Ljubitsch, N., and Akim, L., swelling phenomena in cellulose fibres, A., 695.
- Hess, K., Trogus, C., Osswald, W., and Dziengel, K., X-ray investigations of cellulose derivatives. V. Connexion between cellulose triacetates I and II and the reversion of cellulose, A., 750.
- Hess, K. See also Derksen, J. C., and Trogus, C.
- Hess, R. See Fischer, Hans.
- Hess, R. W. See Moses, F. G.
- Hess, W. C., determination of glutathione with special reference to human blood, A., 103.
- Hess, W. C. See also Sullivan, M. X.
- Hesse, E., uptake and distribution of calcium and phosphorus in normal and rachitic animals, A., 242.
- Hesse, E. See also Meissner, G.
- Hesse, K., effect of alteration in the vegetative system on phosphate metabolism, A., 1214.
- Neubauer analyses and their relation to field trials, B., 733.
- Hesse Manufacturing Co. See Seymour, W. A.
- Hessel, A. See Rheinboldt, H.
- Hesselgrave, W., metal polishes, (P.), B., 670.
- Hessen, R., manufacture of condensation products from phenols and formaldehyde, (P.), B., 470.
- Hesser, T. M. See Fenhagen, F. D.
- Hessler, W. See Dede, L.
- Hessling, G. von. See Reihlen, H.
- Hessling, W., production of solid carbon dioxide, (P.), B., 189, 324.
- Hester, J. B. See Barnette, R. M., and Leukel, W. A.
- Hetherington, H. C. See Bartlett, E. P.
- Hetler, R. A. See Meyer, C. R.
- Hetzler, J. See I. G. Farbenind. A.-G.
- Heubach, U., use of aryl esters for the preparation of amides and derivatives of carbamide, A., 907.
- Heubacher, J., simple thermostated room, A., 883.
- Heubner, W., determinations of calcium and phosphate in animals poisoned by "vitasterol," A., 1071.
- Heuck, C. See I. G. Farbenind. A.-G.
- Heuckeroth, A. W. van, physical properties of lacquer liquids, B., 204.
- physical properties of synthetic resins in lacquers, B., 1119.
- Heuckeroth, A. W. van, and Gardner, H. A., rezyl exposures, B., 622.
- Heuer, A., burning of bricks, tiles, etc., (P.), B., 948.
- Heuer, R. P. See Lukens, H. S.
- Heuer, W. See Staudinger, H.
- Heukelekian, H. See Rudolfs, W.
- Heukeshoven, W. See Jander, G.
- Heumann, J. See Abderhalden, E.
- Heuse, J. P. F., hot liming in defecation [of sugar juice], B., 210.
- Heuse, W., molecular volume of hydrocarbons and other compounds at low temperature, A., 667.
- dilatometric observation of the transition point of methane, A., 677.
- Heuse, W., and Otto, J., limiting value for the expansion and elastic coefficients of gases. II. Neon, A., 679.
- Heuseler, E. See Gans, R.
- Heuser, G. F., and Norris, L. C., rickets in chickens. IV. Effect of heat and exposure to air on the stability of vitamin-D, A., 647.
- Heuser, H., transition of quicklime and its influence on the solubility of phosphoric acid and potash in heavy soils, B., 524.
- Heuser, W. See Rosenhauer, E.
- Heusler, F., manufacture of cast iron and steel containing copper, (P.), B., 952.
- Heusler, O. See I. G. Farbenind. A.-G.
- Heuze, C., manufacture of plate and sheet glass, (P.), B., 420.
- Hevesy, G. von, quantitative analysis by X-rays, A., 878.
- relation between charge and size of ions, A., 1336.
- X-ray spectroscopic microanalysis, A., 1540.
- Hevesy, G. von, Böhm, J., and Faessler, A., quantitative analysis by means of secondary X-rays, A., 1141.
- Hevesy, G. von, and Guenther, A., search for an inactive isotope of the element 84 (polonium), A., 837.
- Hevesy, G. von, and Löwenstein, E., subhalides of homologues of mercury, A., 437.
- Hevesy, G. von, and Seith, W., radioactive recoil in the study of diffusion, A., 186.
- Hevesy, G. von, and Wagner, O. H., distribution of thorium in the animal organism, A., 639.
- solubility of the halides of zirconium and hafnium, A., 1362.
- Hewetson, H. H., and Standard Oil Development Co., distillation of hydrocarbons, (P.), B., 854.
- Hewitt, H. G., potassium $\Delta^{1,4}$ -terpadiene-3:6-dione-2(or 5)-sulfonate (Carstanjen's compound), A., 782.
- Hewitt, L. F., oxidation-reduction potentials of cultures of hemolytic streptococci. I., A., 819.
- oxidation-reduction potentials of cultures of *C. diphtheriae*. I., A., 960.
- oxidation-reduction potentials of staphylococcal cultures. I., A., 960.
- possible mechanism of diphtheria toxoid formation, A., 1319.
- oxidation-reduction potentials of pneumococcus cultures. I., A., 1622.
- Hewlett, A. P. See Gilman, F., and Gilman, H.
- Hey, D. H., *dl*- β -phenylisopropylamine and related compounds, A., 335.
- nor-*dl*-ephedrine and nor-*dl*- ψ -ephedrine, A., 935.
- Hey, D. H. See also Hinkel, L. E.
- Hey, H. H. See Spencer, L. J.
- Hey, M. H., variation of optical properties with chemical composition in the rhodonite-bustamite series, A., 188.
- Hey, M. H. See also Tilley, C. E.
- Heyde, U. See Schwab, G. M.
- Heyde, W. See Grassmann, W.
- Heyden, H. von der. See A. E. G.-Union Elektrizitäts-Ges.
- Heyerdahl, E. F. See Thune, S.
- Heyerdahl, P. M., production of oils and fats such as whale oil, liver oils, (P.), B., 203.
- Heyl, F. W., and Swop, O. F., sterols of ergot. II. Occurrence of dihydroergosterol, A., 1483.
- Heyl, F. W. See also Cartland, G. F., Emerson, H., and Hart, M. C.
- Heylandt, C. W. P., re-gasification of liquefied gases, (P.), B., 696*.
- transferring liquefied gases from one container to another, (P.), B., 888.
- preparation of condensed gases, (P.), B., 933*.
- Heylandt, C. W. P., and Flüge A.-G., liquefaction of gases, (P.), B., 1051*.
- Heymann, E., proteins and electrolytes; thermochemical investigations, A., 417.
- true and colloidal solubility; influence of interfacial tension, A., 1366.
- Heymann, E., and Boye, E., adsorption from solutions and polarity of the solvent, A., 408.
- adsorption in solutions in relation to the dielectric properties of the solvent. I., A., 1364.
- Heymann, E., and Friedländer, E., degree of dispersity of solutions of cadmium in cadmium chloride ("pyrosols"), A., 992.
- Heymann, E., Salomon, K., and Kieffer, R., reduction by charcoal of heavy metal salts in solution, A., 435.

- Heymann, E. See also Magnus, A.
 Heymans, C. See Heymans, J. F.
 Heymans, J. F., and Heymans, C., action of formaldehyde, hydrogen peroxide, and white phosphorus on tuberculin, A., 377.
 Heymons, A. See Braun, J. von.
 Heyn, B. See Gen. Aniline Works, Inc.
 Heyn, M. See Schering-Kahlbaum Akt.-Ges.
 Heyn, W. See Straus, F.
 Heyna, H. See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
 Heyna, (Frl.) L. See Katz, J. R.
 Heyne, G., purification of spectrum carbon, B., 890.
 Heyrovský, J., and Babička, J., polarographic studies with the dropping mercury cathode. XIII. Effect of proteins, A., 999.
 Heyrovský, J., and Dillinger, M., polarographic studies with the dropping mercury cathode. XV. Positive and negative maxima on current-voltage curves, A., 1527.
 Heyse, G., cohesive properties of anhydrous calcium chloride crystals, A., 1101.
 Heyse, M. See Gen. Aniline Works, Inc.
 Heywood, G. R., jackhammer drill steel, B., 421.
 Heywood, H., correlation of sieving analyses, B., 1007.
 Hibbard, P. L., apparatus for percolation at a uniform rate and automatic collecting device, A., 1550.
 Hibben, J. H., use of the grid glow tube in a thermoregulator, A., 883.
 experimental procedure and the kinetics of the nitrogen pentoxide decomposition at low pressures, A., 1127.
 Hibbert, H., isomeric nitrobenzylideneglycerols, A., 737.
 cyclic acetals, A., 889.
 Hibbert, H., and Anderson, C. G., reactions relating to carbohydrates and polysaccharides. XXXII. Constitution of sedosan (anhydrosedoheptoso), A., 1560.
 Hibbert, H., and Marion, L., lignin and related compounds. II. Glycol lignin and glycol ether lignin, A., 1275.
 lignin and related compounds. IV. Nitration of glycol lignin, A., 1418.
 Hibbert, H., and Morazain, J. G., reactions relating to carbohydrates and polysaccharides. XXVI. Structure of acetone glycerol [isopropylideneglycerol], A., 737.
 reactions relating to carbohydrates and polysaccharides. XXVIII. Structure of isopropylideneglycerol, A., 737.
 Hibbert, H., Morazain, J. G., and Paquet, A., reactions relating to carbohydrates and polysaccharides. XXVII. Synthesis and structure of trichloroethylideneglycerol, A., 737.
 Hibbert, H., and Percival, E. G. V., reactions relating to carbohydrates and polysaccharides. XXX. Comparative hydrolysis of disaccharides and polysaccharides, A., 1561.
 Hibbert, H., and Phillips, J. B., lignin and related compounds. III. Glycerol chlorohydrin lignin, A., 1275.
 Hibbert, H., Platt, M. E., and Carter, N. M., reactions relating to carbohydrates and polysaccharides. XXIV. Ring migration in glycerol cyclic acetals; behaviour of *p*-nitrobenzylideneglycerol. XXV. Methylation processes and tendency towards ring shift in glycerol cyclic acetals, A., 191.
 Hibbert, H., and Rowley, H. J., lignin and related compounds. I. Isolation of spruce-wood lignin, A., 1275.
 Hibbert, H., and Tipson, R. S., structure of "gum levan," A., 1024.
 Hibbert, H. See also Pereival, E. G. V.
 Hiby, W. See N.V. Silica en Ovenbouw Mij.
 Hickinbottom, W. J., preparation of *sec*-alkylarylamines and their purification, A., 904.
 glucosides. III. Abnormal replacement of halogen in glucosyl halides: formation of β -glucosides from β -glucosyl chlorides, A., 1023.
 Hickinbottom, W. J., and Preston, G. H., rearrangement of alkyl-anilines. III. Formation of *p*-aminoisobutylbenzene and *p*-amino-*tert*-butylbenzene from isobutylaniline, A., 1174.
 Hickinbottom, W. J., and Waite, A. C., rearrangement of alkyl-anilines. II. Course of the rearrangement in presence of metallic salts, A., 1174.
 Hickman, J. O., and Hickman, (Mrs.) N. V., treatment of milk by ultra-violet light, (P.), B., 484.
 Hickman, K. C. D., mercury meniscus, A., 29.
 low-pressure tensimeter, A., 567.
 Hickman, K. C. D., and Eastman Kodak Co., regulation of chemical reactions; [automatic titration apparatus], (P.), B., 246.
 Hickman, K. C. D., and Sanford, C. R., purification, properties, and uses of certain high-boiling organic liquids, A., 567.
 condensation pumps, A., 568.
 Hickman, K. C. D. See also Kodak, Ltd.
 Hickman, M. R. See Westling, L. L.
 Hickman, (Mrs.) N. V. See Hickman, J. O.
 Hickman (y Emparan), E., [air-vibrator] means for producing an intermittent supply of air to blast, smelting, and similar furnaces, (P.), B., 954.
 Hickmans, E. M. See Braid, F.
 Hicks, G. J., mixing machine, (P.), B., 693.
 Hicks, R. A. See Mellon, R. R.
 Hicks, W. M., analysis of the spectrum of Hg II, A., 651.
 Hicks-Bruun, M. M., improved Victor Meyer mol. wt. apparatus, A., 1548.
 Hida, T. See Tamiya, H.
 Hidaka, H., water-gas generators for bituminous fuels and by-product coke recovery therefrom, (P.), B., 1055.
 Hiebert, F. See Hertz, W.
 Hieber, W., characterisation of iron carbonyls and their derivatives, A., 309.
 Hieber, W., and Bader, G., metal carbonyls. VI. New types of compounds of carbon monoxide with iron halides and their chemical characterisation, A., 875.
 Hieber, W., and Becker, E., metallic carbonyls. VIII. Iron tetracarbonyl and its chemical behaviour, A., 1008.
 Hieber, W., and Mühlbauer, F., heat of formation and constitution of compounds of cobaltous halides with amines, A., 421.
 Hieber, W., Ries, K., and Bader, G., metal carbonyls. VII. Volume of carbon monoxide in its compounds with metal salts and in metal carbonyls, A., 875.
 Hieber, W., Sonnenkalb, F., and Becker, E., derivatives of iron carbonyl. V., A., 723.
 Hiedemann, E. See Ebeler, L.
 Hieger, I., spectra of cancer-producing tars and oils and of related substances, A., 807.
 Hiemenz, H. See Heraeus Vacuumsmelze A.-G.
 Higasi, T., oxidising action of "sugi" wood, A., 67.
 Higby, W. M. See Orthmann, A. C.
 Higginbottom, C. See Challenger, F.
 Higgins, E. B., and British Synthetics, Ltd., preparation of arylides of 2-hydroxy-3-naphthoic acid, (P.), B., 706*.
 Higgins, E. B., and United Water Softeners, Ltd., apparatus for use in carrying out exchange reactions [particularly for water-softening], (P.), B., 304*.
 Higgins, W. F. See Dixon, H. B., and Kaye, G. W. C.
 Higgs, C. D. See Struve, O.
 Highways Construction, Ltd., and Rhodes, C. W., [grooved rock-asphalt] road pavements, etc., (P.), B., 14.
 Higuchi, S., human isohæmolysin, A., 631.
 Hilbok, H. See Kofler, L.
 Hilbert, G. E., and Johnson, T. B., pyrimidines. CXIII. Improved method for the synthesis of cytosine (6-amino-2-hydroxypyrimidine), A., 789.
 pyrimidines. CXV. Alkylation on nitrogen of the pyrimidine ring by application of a new technique involving molecular rearrangements, A., 928.
 Hildebrand, J. H., and Carter, J. M., influence on the ideal solution laws of the distribution of polarity within the molecule, A., 698.
 Hildebrand, J. H. See also Cady, G. H.
 Hildebrandt, F., [laboratory devices], A., 883.
 Hildebrandt, F. See also Butenandt, A.
 Hildebrandt, F. M., and Boyce, F. F., stimulation of cane molasses fermentation by certain metallic salts, B., 1087.
 Hilditch, T. P., production of fats, (P.), B., 871.
 Hilditch, T. P., and Jones, (Miss) E. E., composition of commercial palm oils. I. Fatty acids and component glycerides of some palm oils of low free acidity, B., 956.
 Hilditch, T. P., and Lovern, J. A., head and blubber oils of the sperm whale. II. Component wax esters and general structure of the oils. III. Determination of the higher fatty alcohols present, B., 65.
 Hilditch, T. P., and Priestman, J., component glycerides of Borneo, (Illipé) tallow, B., 619.
 component glycerides of stillingia (Chinese vegetable) fallow, B., 1078.
 Hilditch, T. P., and Sleightholme, J. J., variations in component fatty acids of butter due to changes in seasonal and feeding conditions, A., 1308.

- Hilditch, *T. P.*, Wheaton, *H. J.*, and Holmes, *H. N.*, production of absorbent material, (P.), B., 144*.
- Hilditch, *T. P.* See also Christian, *B. C.*, Collin, *G.*, and Guha, *K. P.*
- Hildt, *W.*, and Malachowski, *R.*, tanning of hides, (P.), B., 523.
- Hiles, *B. D.* See Blish, *M. J.*
- Hilgendorff, *G.*, standardisation of Schweinfurth green for plant treatment, B., 878.
- Hilger, *G.*, apparatus for the manufacture of calcium cyanamide, (P.), B., 324.
- Hilger, Ltd., *A.*, and Twyman, *F.*, apparatus for quantitative spectrum analysis, (P.), B., 1097.
- Hilger, Ltd., *A.*, Twyman, *F.*, and Perry, *J.*, colorimeters, (P.), B., 400.
- Hilger, Ltd., *A.* See also Twyman, *F.*
- Hilgers, *E.*, annealing of glass plates, (P.), B., 190.
- Hill, *A.* See Imperial Chem. Industries, Ltd.
- Hill, *A. C.* See Hatcher, *W. H.*
- Hill, *A. Elisabeth*, artificial soiling of cotton fabrics preparatory to laundering studies, B., 54.
- Hill, *Arthur E.*, double salt formation among carbonates and hydrogen carbonates of sodium and potassium, A., 1523.
- hydrated potassium sesquicarbonate, $K_2CO_3 \cdot 2KHCO_3 \cdot 1.5H_2O$, A., 1523.
- Hill, *A. J.*, Schultz, *A. S.*, and Lindwall, *H. G.*, condensation reactions of cyclic ketones. II. Formation of quinoline derivatives from indigoids, A., 480.
- Hill, *A. J.* See also Case, *F. H.*, and Rider, *T. H.*
- Hill, *A. V.*, thermal method of measuring the vapour pressure of an aqueous solution, A., 689.
- state of water in muscle and blood and the osmotic behaviour of muscle, A., 1211.
- Hill, *A. V.*, and Kupalov, *P. S.*, vapour pressure of muscle, A., 1211.
- Hill, *D. G.*, and Kistiakowsky, *G. B.*, hydrogenation over metallic cesium, A., 552.
- Hill, *D. G.* See also Taylor, *Hugh S.*
- Hill, *D. W.*, and Pyman, *F. L.*, constitution of glycerophosphates, A., 61.
- Hill, *E.* See Bischoff, *F.*
- Hill, *E. G.* See Landolt, *G. L.*
- Hill, *E. L.*, Zeeman effect in doublet band spectra, A., 265.
- Hill, *E. S.*, autoxidation of dialuric acid, A., 480.
- Hill, *G. A.*, and Bruce, *W. F.*, benzylpinacolones and their reduction products. I., A., 343.
- Hill, *H.* See Rushton, *J. L.*
- Hill, *H. H.*, plant juice clarification for nitrate nitrogen determinations, B., 878.
- Hill, *J. W.*, polymerisation and ring formation. VI. Adipic anhydride, A., 1558.
- Hill, *R.* See Imperial Chem. Industries, Ltd.
- Hill, *R. S.* See Mussehl, *F. E.*
- Hill, *S. E.*, improved calomel electrode vessel, A., 730.
- Hill, *S. E.*, and Shoup, *C. S.*, luminous bacteria, A., 252.
- Hill, *S. J.* See Woodroffe, *D.*
- Hill, *W. L.*, and Jacob, *K. D.*, determinations of silica in phosphate rock, B., 372.
- Hill, *W. L.* See also Jacob, *K. D.*, and Reynolds, *D. S.*
- Hiller, *H.* See Müller, *W. J.*
- Hiller, *K.* See Clusius, *K.*
- Hiller, *R. I.*, and Stämmler, *A. E.*, effect of hydrogen-ion concentration on the bactericidal action of mercuriochrome-220, soluble, on *B. coli*, A., 503.
- Hiller, *W.*, and Schönfeldt, *N.*, influence of current density and organic diaphragms on the electro-osmosis of an electrolyte containing sucrose, A., 411.
- Hillig, *F.* See Hartmann, *B. G.*
- Hilsch, *R.*, and Pohl, *R. W.*, dispersion frequencies of alkali halide crystals in the Schumann region, A., 395.
- photochemistry of alkali halide and silver halide crystals, A., 1342.
- Hilton, *S. L.*, extract of witch hazel, B., 639.
- Himberg, *I.* See Björkstén, *J.*
- Himus, *G. W.*, evaporation of water in open pans, B., 39.
- Himwich, *H. E.*, and Adams, *M. A.*, glandular metabolism. I. Source of lactic acid in the testicle and submaxillary gland, A., 811.
- glandular metabolism. II. Carbohydrates of resting and secreting submaxillary glands, A., 1209.
- Himwich, *H. E.*, Koskoff, *Y. D.*, and Nahum, *L. H.*, changes in lactic acid and dextrose in the blood on passage through organs, A., 245.
- carbohydrate metabolism. I. A dextrose-lactic acid cycle involving muscle and liver, A., 368.
- Hinard, *G.*, frying oil in fish preserved in oil, B., 1003.
- Hinard, *G.* See also Bidault, *G.*
- Hinchcliffe, *H. H.* See Major & Co., Ltd.
- Hinchley, *J. W.* See Reid Power Development Co.
- Hincke, *W. B.*, vapour pressure of antimony trioxide, A., 1508.
- Hincke, *W. B.*, and Brantley, *L. R.*, high-temperature equilibrium between silicon nitride, silicon, and nitrogen, A., 419.
- Hind, *H. L.*, brewing research and large-scale experiments, B., 300.
- malting and brewing trials with a six-rowed winter barley, B., 1086.
- Hind, *S. R.*, oil firing [of ceramic ware]. I., B., 906.
- plasticity of clay. I. Mechanical methods of measurement, B., 989.
- Hind, *S. R.*, and Degg, *E. P.*, plasticity of clay. II. Effect of non-plastic additions on mechanical properties of a plastic clay, B., 989.
- Hind, *S. R.*, and Wheeler, *F.*, effect of non-plastics (grog) on the shrinkage and porosity of fireclay in the unfired state, B., 373.
- effect of temperature on cracking of plastic clay; temperature gradients inside the clay during steady heating in a saturated atmosphere and on drying at 100°, B., 1153.
- Hindmarsh, *W. L.*, lethal dose of hydrocyanic acid for ruminants, A., 812.
- Hinegardner, *W. S.*, and Johnson, *T. B.*, synthesis of thiazole amines possessing pharmacological interest. IV., V., and VI., A., 1451, 1600.
- Hines, *C. C.* See Christmas, *W. W.*
- Hines, *J. C.*, apparatus for filtering air, (P.), B., 747.
- Hinkel, *L. E.*, and Dippy, *J. F. J.*, conversion of hydroaromatic into aromatic compounds. IV. Influence of the nitro-group in nitrophenyldihydroresorcinols, A., 1035.
- Hinkel, *L. E.*, and Dunn, *R. T.*, hydrogen cyanide. II. Compounds formed by action of hydrogen halides on hydrogen cyanide, A., 1421.
- Hinkel, *L. E.*, and Hey, *D. H.*, condensations of benzaldehyde and ethyl acetoacetate with carbamide and thiocarbamide, A., 221.
- Hinman, *J. J., jun.*, and Beeson, *K. C.*, chloroamines in the disinfection of water, B., 220.
- Hinnüber, *J.* See Stäblein, *F.*, and Strauss, *B.*
- Hinrichsen, *C.* See Chem. Fabr. Grünau Landshoff & Meyer Akt.-Ges.
- Hinsberg, *K.*, and Laszlo, *D.*, protein removal with mercury in neutral or alkaline solution, A., 494.
- determination of phosphoric acids, A., 562.
- Hinshelwood, *C. N.*, catalytic reactions at high pressures, A., 868.
- thermal decomposition of nitrous oxide, A., 1528.
- Hinshelwood, *C. N.*, Clusius, *K.*, and Hadman, *G.*, homogeneous catalysis of gaseous reactions. III. Decomposition of acetaldehyde catalysed by iodine, A., 1130.
- Hinshelwood, *C. N.* See also Clusius, *K.*, and Fort, *R.*
- Hinstin, *P.* See Électro Matériel.
- Hinton, *G. B.*, manufacture of cementitious material of cellular structure, (P.), B., 1067.
- Hinton, *H. D.*, and Nieuwland, *J. A.*, preparation of acetals. II. Acetals of monohydric alcohols, A., 1160.
- Hintzelmann, *U.*, histochemical detection of iodine, A., 1203.
- Hinzmann, *R.*, and Flössner, *H.*, structure of hard brass (58% Cu), B., 561.
- Hippert, *F.* See Ateliers Réunis.
- Hirabayashi, *S.* See Shoji, *T.*
- Hiraidzumi, *T.*, menthones. I. Chemical and physical properties, A., 1187.
- Hiramatsu, *T.*, determination of salvarsan, its fate in blood, and passage into cerebrospinal fluid, A., 370.
- Hirano, *I.* See Keimatsu, *S.*
- Hirano, *K.*, active substance in the follicular fluid of the ovary, A., 1624.
- Hirano, *S.* See Somiya, *T.*
- Hirasawa, *M.*, coagulation of liquid silk stored in the silk gland of silk-worm, A., 1610.
- Hirshberg, *L. M.* See Anemostat, Ltd.
- Hirko, *P.*, influence of moisture on nitrification, and the mobilisation and immobilisation of phosphoric acid and calcium in soil, B., 530.

- Hiron, (*Mlle.*) *J.* See Darzens, *G.*
- Hirone, *T.* See Honda, *K.*
- Hirose, *M.*, deodorisation of fish oil fatty acid or its soap by Varrentrapp's reaction, *B.*, 777.
- Japanese fish oils. II., *B.*, 870.
- Hirose, *M.*, and Shimomura, *T.*, soaps of fatty acids of the oleic series. III. Sodium oleate. IV. Sodium zoomarate, *A.*, 292.
- soaps of the fatty acids of the oleic series. I. Sodium phys-
terate, *A.*, 451.
- Japanese fish oils, including rock-fish and sand-eel oils, *B.*, 247.
- polymerised soya-bean oil and its soap, *B.*, 674.
- Hirsch, *J.*, determination of soot, *B.*, 697.
- Hirsch, *J.* See also Hahn, *M.*
- Hirsch, *P.*, and Richter, *K.*, use of indicators for the titration of the
chief organic acids occurring in fruit and wine, *B.*, 482
- determination of the alkalinity of fruit produce by conductivity
measurements, *B.*, 790.
- Hirsh, *P.* See also Tillmans, *J.*
- Hirsh, *P. A.*, pulverising machine, (*P.*), *B.*, 490, 1136*.
- Hirsh, Kupfer- & Messing-werke Akt.-Ges., ironless induction
furnace, (*P.*), *B.*, 107.
- electric annealing furnace, (*P.*), *B.*, 869.
- melting of oxidisable material [brass], (*P.*), *B.*, 953.
- method and apparatus for performing chemical synthesis, (*P.*),
B., 972.
- electric induction furnace [without iron core], (*P.*), *B.*, 995.
- electrolysis of fused electrolytes, (*P.*), *B.*, 1162.
- Hirsch, Kupfer- & Messing-werke Akt.-Ges. See also Electric
Furnace Co., Ltd.
- Hirschfelder, *A. D.*, antagonisation of narcotic action of magnes-
ium salts by potassium, sodium, and other univalent cations,
A., 246.
- Hirschfelder, *A. D.*, and Ceder, *E. T.*, effect of ethylene on growth
and enzyme action in animals, *A.*, 813.
- Hirschfelder, *A. D.*, and Wright, *H. N.*, colloid chemistry of anti-
sepsis and chemotherapy. I. Mode of combination of anti-
septic dyes with proteins, *A.*, 820.
- colloid chemistry of antiseptics and chemotherapy. III. Ultra-
microscopic examination of neoarsphenamine and of certain
antiseptics and their effects on protein solutions, *A.*, 953.
- Hirschfelder, *A. D.* See also Bogert, *M. T.*, and Wright, *H. N.*
- Hirschfeld, *A.*, wall and ceiling coverings, etc., (*P.*), *B.*, 666.
- Hirsekorn, *H. G.*, experiments with filters in the (long-wave)
infra-red, *A.*, 1500.
- Hirst, *E. L.* See Avery, *J.*, Bott, *H. G.*, and Haworth, *W. N.*
- Hirst, *H. S.* See Imperial Chem. Industries, Ltd.
- Hirst, *J. F.* See McNair, *L. C.*
- Hirst, *L. L.* See Smith, *D. F.*
- Hirtz, *H.*, recovering nitric acid from weak nitric liquors, (*P.*),
B., 419*.
- Hisaw, *F. L.* See Fevold, *H. L.*
- Hiscocks, *E. S.* See Gibson, *C. S.*
- Hisey, *A.* See Buehler, *C. A.*
- Hissink, *D. J.*, soil acidity and soil adsorption, *B.*, 253.
- determination of the lime requirement of acid soils on the basis
of laboratory and vegetation experiments, *B.*, 257.
- report of Committee on soil reaction measurements. I., *B.*,
921.
- [relation between] soil, fertilisers, and chemical composition of
plants, *B.*, 1082.
- Hitch, *E. F.* See Du Pont de Nemours & Co., *E. I.*
- Hitchcock, *D. I.*, combination of edestin with hydrochloric acid,
A., 1459.
- Hitchcock-Spencer, *A. L.*, boiler for evaporation or heating of
liquids, (*P.*), *B.*, 224*.
- Hitchings, *G. H.* See Thompson, *T. G.*
- Hitz, *F.* See Rieche, *A.*
- Hixon, *R. M.* See Arnold, *R. B.*, Bird, *E. W.*, Craig, *L. C.*,
Goodhue, *L. D.*, Harlan, *W. R.*, and Johns, *I. B.*
- Hixson, *A. W.*, and Cauwenberg, *W. J.*, methylisopropylthio-
indigoid dyes from *p*-cymene. I. Dyes from 2-aminocymene.
II. Dyes from sodium cymene-2-sulphonate, *A.*, 924.
- Hixson, *A. W.*, Hugoson, *N. E. A.*, and Standard Brands, Inc.,
manufacture of yeast, (*P.*), *B.*, 1088.
- Hjerlow, *T.* See Kalle, *F.*
- Hjort, *E. V.* See Amdur, *I.*
- Hasko, *M.*, Kadenacówna, *M.*, and Salitówna, *A.*, conductivity
of hydroxides and alkoxides of alkali metals (lithium, sodium,
potassium) in methyl, ethyl, *n*-propyl, isobutyl, and isoamyl
alcohols, *A.*, 421.
- Hasko, *M.*, and Maslowski, *M.*, electrolytic preparation of arsine
and stibine, *A.*, 715.
- Hasko, *M.* See also Garb, *B.*
- Ilavaty, *J.*, disappearance of vitamin-B in the germination of
cereals, *A.*, 119.
- Ilavická, *B.*, and Trča, *F.*, mineral oil from new sources, *B.*, 496.
- Hloch, *A.*, oxygen-production process of a new "chemical"
gas mask, *B.*, 1006.
- Hoag, *L. E.* See Papish, *J.*
- Hoagland, *R.*, and Snider, *G. G.*, beef extract as a source of
vitamin-B₂, *A.*, 1070.
- nutritive value of proteins in certain kinds of sausage and other
meat food products, *B.*, 80.
- vitamin-G [vitamin-B₂] in certain meats and meat by-products,
B., 1044.
- Hoard, *J. L.* See Tartar, *H. V.*
- Hobart, *H. M.* See General Electric Co.
- Hobson, *F. E.*, [carbonisation] retorts, (*P.*), *B.*, 1099.
- Hobson, *R. P.* See Roach, *W. A.*
- Hobson, *W.*, apparatus for drying, heating, and evaporating, (*P.*),
B., 969.
- Hoart, *R.*, and De Lapparent, *J.*, boehmite from bauxites, *A.*, 189.
- Hoch, *J.* See Ramart, (*Mme.*) *P.*
- Hochberg, *B.*, and Walther, *A.*, electrical conductivity of sodium
chloride crystals, *A.*, 1355.
- Hochberg, *J.* See Petrikaln, *A.*
- Hochofenwerk Lübeck Akt.-Ges. See Metallges. A.-G.
- Hochschwender, *K.* See Curtius, *T.*
- Hock, *A.*, recovery of volatile solvents (Bréguet process), *B.*, 30.
- intake of phosphate and potash [by plants] in Neubauer
seedling experiments and the law of minimum, *B.*, 1124.
- Hock, *H.*, and Stuhlmann, *H.*, action of mercury salts on iron
pentacarbonyl. III., *A.*, 47.
- Hock, *L.*, heat of swelling of raw caoutchouc, *A.*, 694.
- solidification of fatty oils by silent electric discharges ("Vollol-
factis"), *B.*, 724.
- Hock, *L.*, and Nottebohm, *C. L.*, physico-chemical investigations
on electrically polymerised oils (Vollol process); (heat of
solution of caoutchouc), *B.*, 826.
- Hockenjos, *G. L.* See Jobling & Co., Ltd., *J. A.*, and Smith, *G. F.*
- Hocker, *I. S.*, and Hocker Corporation, extraction of oils from
vegetable matter [cacao bean, ground-nut, etc.], (*P.*), *B.*, 778.
- Hocker Corporation. See Hocker, *I. S.*
- Hockett, *R. C.* See Evans, *W. L.*
- Hocking, *H.*, apparatus for separating liquids from fluids, (*P.*),
B., 1097.
- Hocquette, *M.*, influence of decalcification and acidity of littoral
sands on vegetation, *B.*, 340.
- Hoes, *S.*, oligodynamic effect of metallic salt solutions, *A.*, 645.
- Hodalevitch, *G.* See Orlova, (*Frl.*) *M.*
- Hodes, *H. L.* See Jones, *J. H.*
- Hodge, *D.*, blasting cartridges, (*P.*), *B.*, 219, 641, 687.
- blasting cartridges and appliances, (*P.*), *B.*, 303.
- Hodge, *H. G.* See Gardner, *R. H.*
- Hodges, *A. L.*, automatic recording waterproof tester, *B.*, 1022.
- Hodgson, *C. G.*, and Millars' Machinery Co., Ltd., drying cylinders
for road-making materials such as granite, sand, and clinker,
(*P.*), *B.*, 375.
- Hodgson, *H. H.*, colour and constitution from the viewpoint of
recent electronic theory. II., *A.*, 596.
- colour and constitution from the viewpoint of recent electronic
theory. III. Tautomerism of nitrophenols, nitrosation,
influence of the methyl group on the colours of substituted
benzeneazophenols, and diazotisation, *A.*, 906.
- colour and constitution from the viewpoint of recent electronic
theory. IV. Types of anomalous nitration; chelation;
complex salt formation; unusual stability of substituted
aminophenols; direct acetylation of amines; inhibited
hydrolysis of sulphonic acids; reaction of potassium hydr-
oxide with benzaldehyde, *A.*, 1175.
- Hodgson, *H. H.*, and Clay, *H.*, nitrosation of phenols. VII. Re-
sorcinol monomethyl ether and *m*-cresol, *A.*, 209.
- nitrosation of phenols. VIII. Resorcinol monoethyl ether,
A., 910.
- action of nitrous acid on resorcinol diethyl ether, *A.*, 1284.
- Hodgson, *H. H.*, and Kershaw, *A.*, halogenation of anisole
derivatives, *A.*, 208.
- nitrous acid as a nitrating agent. I. Nitration of dimethyl-*p*-
toluidine, *A.*, 466.
- 3-halogeno-6-nitro- and -6-amino-dimethylanilines, *A.*, 595.

- Hodgson, H. H., and Kershaw, A., nitrosation of phenols. IX. Nitrosation of *m*-bromophenol, A., 910.
sulphonation of *m*-chlorophenol and some new halogenophenols, A., 1033.
nitrosation of phenols. X. Nitrosation of *m*-iodophenol, A., 1281.
dinitration of monosulphonated *m*-chlorophenol and sulphonation and subsequent further nitration of 3-chloro-2- and -6-nitrophenols, A., 1429.
- Hodgson, H. H., and Nixon, J., action of fuming nitric acid on the 4-halogeno-2:6-dibromo-phenols and -anisoles; anomalous behaviour of fluorine derivatives, A., 908.
aromatic substitution. II. Action of fuming nitric acid on the 4-fluoro-2:6-dihalogenophenols and -anisoles. III. Action of fuming nitric acid on the 3-fluoro-2:4:6-trihalogenophenols and -anisoles, A., 1281.
methylation of phenols; a suggested mechanism, A., 1429.
- Hodgson, H. H., and Rosenberg, W., 2'-nitro-2- and -4-aminodiphenyl sulphides and 4'-nitro-2- and -4-aminodiphenyl sulphides, A., 337.
influence of substituents on the benzoin reaction, A., 346.
- Hodgson, H. H., and Smith, E. W., action of freshly precipitated mercuric oxide on a suspension of 3:5-dinitrotoluene in aqueous sodium hydroxide; novel preparation of 3:5-dinitro-*p*-cresol, A., 1282.
- Hodler, See Mittasch, A.
- Höber, R., and Hoffmann, Friedrich, electrometric behaviour of artificial membranes composed of selectively cation- and anion-permeable portions of surface, A., 154.
- Höfer, P., and Kaliforschungs-Anstalt Ges.m.b.H., production of potassium nitrate, (P.), B., 1027.
- Höfer, P. See also Kaliforschungs-Anstalt Ges.m.b.H.
- Höfner, J., method and apparatus for finishing textile goods, (P.), B., 238.
- Hoeg, F. M. A., density of ammonium nitrate solutions, A., 1247.
- Höhn, A. See I. G. Farbenind. A.-G.
- Hoek, H., bacterial filtration by the Berkefeld filter and the size of the pores, B., 743.
- Höltje, R., additive compounds of phosphine. I., A., 876.
- Hoelzer, H. W. See Frankfurter Gasges.
- Hölzl, F., mobility of some ions containing iron. II. Influence of substitution in co-ordinated groups, A., 1253.
mobility of some ions containing iron. III. Complex ions of the salts $\text{Na}_3[\text{Fe}(\text{CN})_5\text{OH}_2]$ and $\text{Na}_2[\text{Fe}(\text{CN})_5\text{OH}_2]$, A., 1524.
- Hölzl, F. [with Kügerl, R., and Rokitsky, K.], comparison of simple and complex iron salts. I. Mobility of ions containing iron, A., 862.
- Hönel, H., manufacture of artificial masses as bases for coatings, impregnating agents, binders, etc., (P.), B., 1164.
- Hönig, L. See Freiberger, M.
- Hönig, M., and Ruzicka, W., oxidative decomposition of starch by bromine in alkaline solution, A., 584.
effect of addition of carbonate on the oxidation of hexoses by bromine, A., 1166.
- Hönig, R., tetrahedral carbon atom, A., 19.
- Hönigsberg, F. H. von, possibility of the [diagrammatic] representation of a function of four variables, with practical application to four-component phase diagrams, A., 699.
- Hönigschmid, O., radioactive disintegration of potassium, A., 270.
synthesis of silver sulphide; at. wt. of sulphur, A., 1337.
- Hönigschmid, O., and Sachtleben, R., at. wt. of rhenium; analysis of silver perrhenate, A., 1338.
- Hönigschmid, O. See also Bodenstein, M.
- Hönl, V., energy-storage of plants in relation to the carbon and nitrogen contents. II., A., 1482.
- Hönn, C. See Schmidt, E.
- Höper, C., manufacture of leather, (P.), B., 252.
- Hoepke, F., testing of rust-preventive paints, B., 468.
- Höppner, H., jun. See Weber, Anton.
- Hörlück, A. D. See Kullerud, G.
- Hoerner, J. L., "penetrol" [insecticide] as an activator for nicotine, B., 962.
- Hörste, G. M. zu. See Nitschke, A.
- Hoesch, K., primary tryptic action in the pancreas, biliary duct, and liver, A., 1609.
- Hoesch, W., carbon dioxide content of distilled water, A., 310.
- Hoewel, H. F. See Menne, F.
- Hoeven, C. van der, determination of insoluble matter in tanning extracts, B., 1122.
- Hoff, G. P. See Comptoir des Textiles Artificiels Soc. Anon.
- Hoff, W. L., and Wilkinson, J. A., base exchange between dyes and soils, A., 1365.
- Hoffa, E. See Gen. Aniline Works, Inc., Grasselli Dyestuffs Corp., and I. G. Farbenind. A.-G.
- Hoffenreich, F. See Gözöny, L.
- Hoffer, A. See Kürschner, K.
- Hoffer, M. See Kuhn, R.
- Hoffert, W. H., benzol recovery, with special reference to gas-works' practice, B., 749.
- Hoffert, W. H., and Claxton, G., resin formation in benzols. I. Factors governing and mechanism of resin formation. II. Prevention of resinification: technical-scale storage tests and road trials, B., 1137.
- Hoffman, activated milk, B., 164.
- Hoffman, A., action of phosphine on formaldehyde. II., A., 1277.
- Hoffman, J. I. See Lundell, G. E. F.
- Hoffman, Z. A. See Barron, E. S. G.
- Hoffmann, A., [domestic, electrically driven] hot-air drying apparatus, (P.), B., 1137.
- Hoffmann, Alfred. See Leuchs, H.
- Hoffmann, C. See Mignonac, G.
- Hoffmann, E., theory of the origin of fusain, A., 57.
nitrogenous fertilisers, B., 631.
- Hoffmann, F. See Jantsch, G.
- Hoffmann, Friedrich. See Höber, R.
- Hoffmann, F. G., determination of the "lump density" of coke by coating the surface with paraffin wax, B., 974.
- Hoffmann, G., absorption of electrically excited cadmium, zinc, and thallium vapours, A., 510.
- Hoffmann, G. F., and Lenher, V., precipitated selenium dioxide, A., 48.
- Hoffmann, H. See Rosenhauer, E.
- Hoffmann, H., jun., and Johnson, W. C., analytical sublimation with special reference to micro-sublimation, A., 1263.
- Hoffmann, J., ultramarine problem in the light of recent research, A., 307.
constitution of ultramarines, A., 555.
ultramarination of various sodium aluminium silicates, A., 1138.
- Hoffmann, K., manufacture of artificial threads of cellulose derivatives, (P.), B., 554*.
- Hoffmann, R., electro-osmotic "de-salting" of concentrated solutions, A., 1516.
- Hoffmann, U. See I. G. Farbenind. A.-G.
- Hoffmann, W. See Arnd, T., and Tacke, B.
- Hoffmann, W. See I. G. Farbenind. A.-G.
- Hoffmann-La Roche & Co. Akt.-Ges., F., manufacture of α -amino- β -arylpropionic acids and their substitution products, (P.), B., 166.
preparation of adipic acid, (P.), B., 233.
manufacture of *OO*-diacetyldiphenolisatin, (P.), B., 452.
manufacture of ureides of dialkylacetic acids, (P.), B., 586.
products for destroying animals, (P.), B., 1004.
rendering irradiated cholesterol stable, (P.), B., 1046.
manufacture of 1-phenyl-2-methyl-3:4-trimethylene-5-pyrazolone, (P.), B., 1169.
- Hofius, T., and Reppman, A., preservation of milk and cream, (P.), B., 927.
- Hofman-Bang, G., barley proteins; influence of method of grinding on their determination, B., 926.
- Hofmann, influence of carbon dioxide on yeast fermentation, B., 635.
- Hofmann, E. See Lieske, R., and Schläpfer, P.
- Hofmann, Eduard. See Neuberg, C.
- Hofmann, F., and Wulff, C., cracking or destructive hydrogenation of oils, (P.), B., 134.
refining of low-temperature tar, tar oils of any origin, crude benzene, and products obtained by destructive hydrogenation of carbonaceous materials, (P.), B., 406, 450.
- Hofmann, F. See also I. G. Farbenind. A.-G.
- Hofmann, K. A., black powder, B., 38.
- Hofmann, K. A., and Korpiun, J., formation of hydrazine during the oxidative degradation of ammonia and by degradation in the flame, A., 171.
- Hofmann, P., oligodynamic action of metals and metallic salts on bacteria at various oxygen pressures, A., 1068.
- Hofmann, Remigius. See Manegold, E.
- Hofmann, Rudolf, iodometric micro-determination of bromides and iodides, A., 310.

- Hofmann, U., and Frenzel, A., swelling of graphite and formation of graphitic acid, A., 875.
- Hofmann, U., and Groll, E., separation on iron of carbon from carbon monoxide. III. Formation of iron oxides and iron carbides in the solid phase, A., 1263.
- Hofmeister, B., swelling of coals during the coking process, B., 494.
- Hofseth, B., extraction of useful elements [iron] from their ores by the aid of gases, (P.), B., 1075.
- Hofszajn, S. See Stawinski, K.
- Hogaboom, G. B., and Hanson-Van Winkle-Munning Co., nickel anode, (P.), B., 1035.
- Hogaboom, G. B., jun. See Fink, C. G.
- Hogan, A. G., Shrewsbury, C. L., and Kempster, H. L., effect of inadequate rations on the composition of the blood and of the bone of chicks, A., 1070.
- Hogben, L., and Gordon, C., pituitary gland. VII. Separate identity of the pressor and melanophore principles, A., 1320.
- Hogsholt, C. J., constructing and repairing roads, (P.), B., 323.
- Hohage, R., works' supervision in the manufacture and working of special steels and in carrying out the necessary tests, B., 285.
- Hohenstein, J. See Binz, A.
- Holborow, A. G., examination of goats' milk for unboiled milk, B., 79.
- Holbrook, M., [wood-pulp filling for] primary and secondary electric batteries, (P.), B., 1035.
- Holde, D., preparation of the thiocyanates of the unsaturated fatty acids, A., 1020.
- Holde, D., and Bleyberg, W., purification [isolation] and properties of naturally occurring higher fatty acids, A., 1557.
- Holde, D., Bleyberg, W., and Vohrer, H., acids of montan wax, B., 596.
- Holden, F., determination of nitrous acid in spent nitrating acids, B., 611.
- Holden, G. E. See Livsey, H.
- Holden, H. F., and Freeman, M., denatured proteins, A., 1197.
- Holden, J. See Halden & Co. Ltd., J.
- Holden, J. A. See Smith, W. S.
- Holden, J. H., O'Brien, T., Whetzel, J. C., Zimmerman, R. E., and American Sheet & Tin Plate Co., removing, purifying, and recovering oil from tinplate, (P.), B., 722*.
- Holder, G. See Ginsberg, H.
- Holford, H. J., and Harvey Holford Separators, Ltd., separator for treatment of mixtures of mutually insoluble liquids, (P.), B., 539*.
- Holgersson, S., X-ray examination of synthetic chromium spinels, A., 1352.
- Holgersson, S., and Serres, A., magnetic properties and the crystal lattice of the ferrites, A., 1355.
- Holiday, E. R., characteristic absorption of ultra-violet radiation by certain purines, A., 1088.
- Holland, E. B., Dunbar, C. O., and Gilligan, G. M., supplements for copper fungicides, B., 785.
- Holland, E. B., Dunbar, C. O., Gilligan, G. M., and Doran, W. L., preparation and effectiveness of basic copper sulphate as a fungicide, B., 525.
- Holland, H. C., ternary system zinc oxide-zinc chloride-water, A., 701.
- Holland, R. A. See Whiting, G. A.
- Hollander, A., sulphur-treated and blown linseed oil, B., 382.
- Hollander, C. S., and Helwig, E. L., reactive packing for metalurgical refractories, (P.), B., 284.
- Hollander, F. See Berkson, J.
- Hollands, H. W., and Lowndes, E. C., pulverised fuel for the small unit-shell-type boiler, metallurgical and chemical processes, B., 535.
- Holland, A., extraction of iodine from its iodide solutions, (P.), B., 189.
- Hollatz, G. See Grossfeld, J.
- Holleck, L. See Müller, W. J.
- Hollely, W. F. See Courtaulds, Ltd.
- Holleman, A. F., sulphonic acids of *m*- and *p*-xylenes and mesitylone and their derivatives, A., 80, 202.
- 1:3:4:5-tetranitrobenzene, A., 331.
- 2:3:4:6-tetranitrotoluene, A., 900.
- Holley, A. E. See Anglo-Persian Oil Co., Ltd.
- Hollings, H., Pexton, S., and Chaplin, R., recovery of benzol from coal gas, with particular reference to the use of active charcoal, B., 43.
- Hollings, H. See also Gas Light & Coke Co.
- Hollingworth, D. V., design, construction, and operation of a modern coke-oven and by-product recovery plant, equipped for the manufacture of town gas, B., 646.
- Hollins, C. See Brit. Dyestuffs Corp., Ltd.
- Hollins, J. See Imperial Chem. Industries, Ltd.
- Hollup Corporation. See Pennington, H. R.
- Holluta, J., and Mutschin, A., kinetics of the reduction of permanganate by formaldehyde in neutral solution, A., 1529.
- Holm, G. E., and Grewe, E., buffer intensities of water extracts and suspensions of various flours at different H-ion concentrations, B., 584.
- Holm, G. E. See also Greenbank, G. R.
- Holm, R., determination of the heat conductivity of metals, particularly at high temperatures, A., 1507.
- Holm, R., and Störmer, R., heat conductivity of a platinum test-piece between 19° and 1020°, A., 1507.
- Holman, C. W., water-concentration tests [for ores], B., 423.
- Holman, C. H., and Hooppaw, O. W., manufacture of coating for wood, metal, and other surfaces, (P.), B., 26.
- Holmberg, A., sintering apparatus [for ores], (P.), B., 565*.
- Holmberg, B., formation of thiocarbamates in aqueous solution, A., 199.
- Holmes, Arthur, period of "actino-uranium" and its bearing on the ages of radioactive minerals, A., 1339.
- Holmes, Arthur, and Lawson, R. W., [product of the radioactive disintegration of potassium], A., 130.
- Holmes, August, and Standard Oil Development Co., manufacture of white petrolatum, (P.), B., 134.
- Holmes, B. E., and Patey, A., production of ammonia by surviving kidney tissue. II. Possible precursors of urinary ammonia, A., 1614.
- Holmes, C. W. H., and Birtley Iron Co., Ltd., separation of [coal] particles of different densities by means of [heavy] liquids, (P.), B., 891.
- [shaking-table] separation of dry materials [by means of upward air currents], (P.), B., 972.
- Holmes, C. W. H. See also Birtley Iron Co., Ltd., and Bramwell, I. L.
- Holmes, E. G., carbohydrates of crab nerve, A., 237.
- oxidations in central and peripheral nervous tissue, A., 1312.
- Holmes, E. G., and Ashford, C. A., lactic acid oxidation in brain with reference to the "Meyerhof cycle," A., 1312.
- Holmes, E. G., Gerard, R. W., and Solomon, E. I., nerve metabolism. VI. Carbohydrate metabolism of active nerve, A., 950.
- Holmes, E. G. See also Sherif, M. A. F.
- Holmes, H. H. See Berry, Wiggins & Co., Ltd.
- Holmes, H. N., impregnation of porous gels with (A) metals or other insoluble material, or (B) solid material, (P.), B., 509.
- Holmes, H. N., and Elder, A. L., vanadium compounds as catalysts for the oxidation of sulphur dioxide, B., 659.
- Holmes, H. N., and Thor, C. J. B., adsorption of fats from volatile solvents, A., 1246.
- Holmes, H. N. See also Hilditch, T. P.
- Holmes, J., and Kingcome, H. A., effecting continuous digestion in the extraction of cellulose, (P.), B., 1061.
- Holmes, R. S. See Jacob, K. D.
- Holmes, T. See Smithells, A.
- Holmes, W. C., and Peterson, A. R., absorption ratios of biological stains, A., 968.
- analysis of neutral-red and of the pyronines, A., 1053.
- Holmes Co., Inc., T. J., [non-leaking] atomisers for liquids, (P.), B., 1137.
- Holmes & Co., W. C. See Cooper, C., Henshaw, D. M., and Watson, S. G.
- Holroyd, R., and Wheeler, R. V., primary thermal decomposition of coal, B., 494.
- Holt, D. A. See Papish, J.
- Holt, F. See Imperial Chem. Industries, Ltd.
- Holt, M. L., and Kahlenberg, L., couples in the titration of acids and bases, A., 724.
- Holt, R. W., and Fusion Welding Corporation, cutting electrode, (P.), B., 246.
- Holt, T. W., manufacture of safety or unsplinterable glass, (P.), B., 863.
- Holt, T. W., and Stuart, J. F. W., manufacture of unsplinterable glass, (P.), B., 1111.
- [frame for] manufacture of safety or unsplinterable glass, (P.), B., 1153.
- Holten, C., effect of insulin on gaseous metabolism, A., 504.

- Holten, C. See also Brems, A.
- Holter, A., manufacture of impregnated paper sacks, (P.), B., 53.
- Holter, K., and Thune, S., extraction of [animal or vegetable] oils from materials containing them, (P.), B., 203.
- Holthaus, C. See Bauer, O.
- Holtz, F., photoactivation of ergosterol to vitamin-D, A., 1070.
- Holtz, F., and Schreiber, E., passage of carbohydrate through the animal organism, A., 1312.
- physiological effect of irradiated ergosterol and its transformation products, A., 1481.
- Holtz, F. See also Brand, T. von.
- Holtz, J. C. See Huff, W. J.
- Holtzschmidt, V., activity coefficients of the components of a binary mixture, A., 35.
- Holwech, W., determination of silver by titration with thiocyanate, A., 1392.
- Holweck, F., and Wertenstein, L., ionisation potential of radon, A., 1335.
- Holz, A., and Berdell, T. van D., production of chemical fertiliser, (P.), B., 923.
- [continuous] production of dicalcium phosphate, (P.), B., 1064.
- Holzach, K. See Gen. Aniline Works, Inc.
- Holzappel, A. C., protecting the interiors of oil-cracking retorts, (P.), B., 704*.
- Holzer, H., spot tests for the detection of the precious metals, A., 1150.
- Holzer, H. See also Janke, A., and Strebing, R.
- Holzhydrolyse A.-G., purification of wood sugar, (P.), B., 1127.
- Holzmann, H. See Magnus, A., and Thilenius, R.
- Holzverkohlungs-Industrie Akt.-Ges., sodium sulphite for analysis, A., 1010.
- manufacture of concentrated volatile aliphatic acids, (P.), B., 50.
- production of esters, (P.), B., 315.
- catalytic hydrogenation and dehydrogenation of organic compounds, (P.), B., 452.
- catalysts for production of ketones, (P.), B., 602.
- catalytic gas reactions, (P.), B., 1097.
- Holzverkohlungs-Industrie Akt.-Ges., and Seib, J., production of crotonaldehyde, (P.), B., 315.
- Holzverkohlungs-Industrie Akt.-Ges., and Varga, J., destructive hydrogenation of carbonaceous bodies, (P.), B., 700.
- Holzverkohlungs-Industrie Akt.-Ges. See also Enssle, G., Fuchs, O., Mik, F., and Querfurth, W.
- Holzworth, E. H., blast-furnace tuyère, (P.), B., 244, 823*.
- Homborg, F., Landecker, M., and American Nuplex Corporation, production of moulded masses from blood, (P.), B., 26.
- Homer, G. L. See Harshaw, W. J.
- Hommel, W., extraction of sugar from molasses, (P.), B., 211.
- Hommerberg, C., specificity of animal phosphatases, A., 112.
- Homolka, B. See I. G. Farbenind. A.-G.
- Hon, H. C. See Lim, R. K. S.
- Honcamp, F., Helms, W., Ködder, G., and Petermann, A., effect of increasing doses of coconut and palm-kernel cake on the fat content of milk, B., 964.
- Honcamp, F., and Wiessmann, H., fixation of the nitrogen of liquid manure by lignin and humus-lignite, B., 834.
- field manurial trials with "nitrophoska," B., 1001.
- Honda, K., ferromagnetic theories of Weiss and Heisenberg, A., 1101.
- nature of martensite crystals, B., 286.
- determination of the sharpness, cutting power, and permanence of the cutting edge of blades, tools, etc., (P.), B., 288.
- Honda, K., and Abé, H., equilibrium diagram of the lead-tin system, A., 1359.
- Honda, K., and Kasé, T., determination of carbon in open-hearth practice, B., 463.
- Honda, K., Kase, T., and Matuyama, Y., volume change of cast iron during solidification, B., 14, 378*.
- Honda, K., Okubo, J., and Hirone, T., heat evolution during the magnetisation of steels, A., 141.
- Honda, T., apparatus for detecting oxygen in gaseous mixtures, A., 568.
- Honert, T. H. van den, limiting factors in carbon dioxide assimilation, A., 382.
- Honeywell, H. E., Dutcher, R. A., and Dahle, C. D., vitamins. XVII. Ossifying potency of raw and evaporated milks, A., 1071.
- Honeywell, H. E. See also Anderson, Arthur K.
- Honig, P., separate clarification of last-mill [sugar] juice, B., 210.
- changes in the composition of [sugar-factory] filter-cloth with use, B., 476.
- classification of sugars, B., 476.
- Honig, P., and Bogtstra, J. F., pressure evaporation in cane-sugar factories, B., 476.
- measurement of colour in the sugar industry, B., 477.
- Honold, E. See Gen. Aniline Works, Inc.
- Hood, E. G., and White, A. H., metallic discoloration of Cheddar cheese, B., 584.
- Hood, H. P. See Corning Glass Works.
- Hooley, W. C., and New Jersey Zinc Co., manufacture of lithopone, (P.), B., 678*.
- Hoogeveen, A. P. J., velocity measurements of intramolecular changes in N-chloroacet-a-naphthylamide, A., 866.
- velocity meters for gases, A., 1265.
- Hoogshondt, S. B. See Lifschitz, I.
- Hooker, A. H., Marsh, W. J., and Hooker Electrochemical Co., purification of caustic soda, (P.), B., 142.
- Hooker, D. R., chemical factors in ventricular fibrillation, A., 953.
- Hooker, M. O. See Fischer, M. H.
- Hooker Electrochemical Co. See Hooker, A. H., and Rowland, J. M.
- Hooley, L. J., Thomas, J., and Scottish Dyes, Ltd., vat dye derivatives [soluble leuco-esters], (P.), B., 1060.
- Hooley, L. J. See also Wilson, J. S.
- Hooper, A. E. J. See Lamberti, A. A.
- Hooper, C. W. See Metz Labs., Inc., H. A.
- Hooppaw, O. W. See Holman, C. H.
- Hoosen, B. van, blood-urea-nitrogen in scopolamine-morphine-nitrous oxide anaesthesia, A., 813.
- Hoover, C. P., maintaining chemical balance to resist corrosion, and its application to a recent development in water softening with lime, B., 1048.
- Hoover, C. P., and Downes, F. A., agitation and settling process, (P.), B., 886.
- Hoover, G. I., Hunten, K. W., and Sankey, C. A., electrical conductivity studies of the interaction of sulphurous acid and certain aldehydes, A., 1123.
- Hoover, K. H., and National Aniline & Chemical Co., Inc., monoazopyrazolone dye, (P.), B., 366.
- Hope, J. A., furnaces, (P.), B., 536.
- Hopf, G. See Brill, E.
- Hopfelt, R., cadmium plate, B., 378.
- Hopff, H. See Gen. Aniline Works, Inc., and Meyer, K. H.
- Hopkins, A., and Hopkins-Tull Machinery Co., filter, (P.), B., 887.
- Hopkins, A. J., and Beebe, R. A., electrometric study of the precipitation of copper ions by alkalis, A., 706.
- Hopkins, E. F., iron-ion concentration in relation to growth and other biological processes, A., 1071.
- Hopkins, E. W., nitrogen fixation by the root-nodule bacteria of the Leguminosae, B., 161.
- Hopkins, E. W., Peterson, W. H., and Fred, E. B., composition of certain bacteria; carbon and nitrogen content, A., 251.
- composition of the gum produced by root nodule bacteria, A., 1478.
- Hopkins, H. S., and Whitmore, E. R., floe produced [in water] by chlorinated copperas, B., 266.
- Hopkins, R. H., recent advances in the chemistry of enzymes, A., 955.
- solubility of maize proteins in mashing. II., B., 835.
- Hopkins, R. H., and Burns, J. A., proteolytic enzymes of green malt, B., 211.
- solubility of maize proteins in mashing, B., 212.
- Hopkins, M. B. See Park, J. G.
- Hopkinson, E., Teague, M. C., and American Rubber Co., treatment of rubber latex compositions and articles formed thereby, (P.), B., 71.
- Hopkins-Tull Machinery Co. See Hopkins, A.
- Hoppe, W., weathering of shell limestone and soil formation near Jena, A., 734.
- Hopper, I. V., and Alexander, J. R., monoacyl derivatives of benzidine, I., A., 595.
- desylanilides, A., 604.
- Hopper, T. H., rapid bulk-sample dryer, B., 535.
- Hoppert, C. A. See Steenbock, H.
- Hopton, G. U. See Gulland, J. M.
- Hopwood, J. M. See Hall, R. E.
- Horák, V., filtration material for gas masks [from fibrous material and activated charcoal], (P.), B., 968.

- Horák, V., filter insertions for respirators [from activated carbon-aceous felt], (P.), B., 968.
- Hori, S. See Hasegawa, K.
- Hori, T., structure of the CH band at 3143 Å. and a new NH band at 2530 Å., A., 133.
- spectrum of ionised mercury hydride, A., 265, 652.
- absorption spectrum of sodium hydride, A., 978.
- Horiha, S., and Baba, H., effect of light on some colloids, A., 691.
- Horiha, S., and Ishii, S., formation of colloids by light. I. Copper, A., 691.
- Horii, S., stencil sheet, (P.), B., 871.
- Horkheimer, P., detection of acetone and acetoacetic acid in urine, A., 364, 805, 806, 1058.
- detection of acetone derivatives in urine, A., 947.
- detection of acetone in urine, A., 1205.
- Horn, D. W., and Osol, A., fumigation with formaldehyde, B., 122.
- Horn, E. See Stampe, G.
- Horn, J. See Scholl, R.
- Horn, K. R. van. See Fink, W. L.
- Horn, M. J. See Jones, D. B.
- Horn, O., removal of hemicelluloses from wood by sodium hydroxide, B., 812.
- Horn, O. See also Brand, K., and Fuchs, W.
- Horn, R., preparation of electrolytic writing and drawing paper, etc., (P.), B., 1061.
- Horn, Z., so-called specific-dynamic action of foods. III. Influence of blood-serum on the oxygen consumption of erythrocytes. IV. Influence of hormones on the respiration of cells, A., 1613.
- Horn, Z., and Onody, G., so-called specific-dynamic action of foods. II. Influence of carbohydrates on the oxygen consumption of isolated cells, A., 1613.
- Hornbostel, J., measurement of slow electrons by means of a point [Geiger] counter, A., 1230.
- Horning, S. C., velocity of a bimolecular reaction in a homogeneous system, A., 424.
- Hornsey, J. W., and Granular Iron Co., apparatus for reducing oxides of metals [copper, lead, or zinc], (P.), B., 427*.
- Hornung, F., preheaters with curved tubes, B., 443.
- Horny, R. See Swoboda, K.
- Horovitz-Vlassova, L. M., removal of phenols from effluents, B., 542.
- Horowitz, G., possible form of metallic nitrogen, A., 9.
- Horowitz, S. See Rubens, B.
- Horrnann, P., resins. II. Preparation of pure α - and β -amyrin and their constitution, A., 215.
- Horsfall, R. S. See Brit. Dyestuffs Corp., Ltd.
- Horsley, G. F. See Imperial Chem. Industries, Ltd.
- Horsman, H. S., [boiler] furnaces, (P.), B., 267.
- Horst, F. W., small gas-muffle oven. II., A., 314.
- laboratory apparatus; [desiccators and drying ovens], A., 1013.
- Horst, (Miss) H. van der, measurement of the pressure coefficients of helium to determine the absolute zero, A., 847.
- Horst, (Miss) H. van der. See also Keesom, W. H.
- Horst, K. See I. G. Farbenind. A.-G.
- Horst, W. P. ter, and Rubber Service Laboratories Co., rubber-vulcanisation process, (P.), B., 1081.
- Horsters, H., human diabetes mellitus. I. Phosphate-carbohydrate metabolism, A., 807.
- iron content of tissues in icterus, A., 1207.
- distribution of insulin in the organism after injection of insulin. I. and II. Dependence on diet and blood-sugar content, A., 1480.
- Horsters, H., and Brugsch, H., insulin. I. Standardisation with white mice, A., 378.
- influence of insulin on narcotised animals, A., 379.
- Horsters, H. See also Brugsch, H.
- Horton, F. See Davies, (Miss) A. C.
- Horton, L. See Bone, W. A.
- Hortvet, R. M., and Mahr Manufacturing Co., roller-hearth furnace, (P.), B., 149.
- Horvath, A. A., blood composition of animals under pathological conditions. II. Experiments with lupins, A., 640.
- Horvath, E., digestion of maize stalks with neutral sulphites, B., 455.
- reconditioning of musty grain, etc. [by ultra-violet rays], (P.), B., 1090.
- Horvath, G. See Ernst, E.
- Hosaki, N. See Shikata, M.
- Hošek, J., mathematical determination of the calorific value of gaseous saturated hydrocarbons and their mixtures, B., 6.
- Hosenfeld, M., Hänsel, O., and Siemens & Halske Akt.-Ges., electrolytic refining of copper or copper alloys, (P.), B., 565*.
- Hoshino, T. See Wieland, H.
- Hosking, H. J. See Rhodes, F. H.
- Hosking, J. R., diterpenes laurene and mirene, A., 1592.
- Hoskins, W. M., Randall, M., and Schmidt, C. L. A., conductance and activity coefficients of glutamic and aspartic acids and of their monosodium salts, A., 1251.
- Hosmer, F. E., recovery of gasoline from natural gas, (P.), B., 702.
- refrigeration of gases for recovery of gasoline, (P.), B., 806.
- Hostmann-Steinberg'sche Farbenfabriken G.m.b.H., C. See Machtoff, J.
- Hothersall, A. W. See Macnaughton, D. J.
- Hoton, L., pure butters and butters adulterated [with coconut oil], B., 1002.
- Hottenroth, V. See Zellstofffabr. Waldhof.
- Hottinger, A., action of vitamin-D, A., 1070.
- Houben, J., and Fischer, Walter, nuclear syntheses of ketimines and ketones by condensation of nitriles with aromatic and heterocyclic compounds. I. Ketimines and ketones from benzene, toluene, *o*-, *m*-, and *p*-xylene, mesitylene, naphthalene, and thiophen, A., 89.
- nuclear synthesis of ketimines and ketones by condensation of nitriles with aromatic and heterocyclic compounds. II. Syntheses with toluene, mesitylene, tetrahydronaphthalene, phenol, 1:4:5-xylene, 3:5-dimethylanisole, thymol, and carvacrol, A., 1583.
- preparation of cyclic nitriles by catalytic degradation. I., A., 1584.
- Houck, R. C., density of glycine, A., 1104.
- Houck, R. C. See also Sheppard, S. E.
- Houdremont, E., and Müller, H., normal and abnormal steel, B., 1113.
- Hougen, O. A. See Colburn, A. P.
- Hough, A. T., analysis of [vegetable-tanned] leather, B., 629.
- analysis of leather, B., 1081.
- Hough, A. T., and Dru, R., Wilson-Kern method [of tannin analysis] in laboratory practice, B., 1165.
- Houghton & Co., E. F., lubricating, conditioning, and laying the fly of raw cotton, (P.), B., 504.
- Houghton & Co., E. F. See also Pressell, G. W.
- Houques-Fourcade, C. A., manufacture of sea caoutchouc, (P.), B., 918*.
- Houseman, P. A., and Swift, C. K., liquorice root and liquorice extract. IV. A new substance in Chinese liquorice root, A., 121.
- Houssa, A. J. H., and Kenyon, J., preparation of optically active phenylmethylcarbinols, A., 1576.
- Houssa, A. J. H., and Phillips, H., reactions of δ - β -octyl chloroformate of interest from the viewpoint of the Walden inversion, A., 61.
- Houssay, B. A., and Biasotti, A., hypophysectomy and pancreas diabetes in the toad, A., 1310.
- Houssay, B. A., Lewis, J. T., and Foglia, V. G., determination of insulin secretion, A., 1320.
- pancreas and blood-sugar regulation, A., 1480.
- Houston, W. V. See Huff, L. D.
- Houstoun, R. A., colorimeter, (P.), B., 400.
- Houtermans, F. G. See Atkinson, R. d'E.
- Hovey, A. G. See Kienle, R. H.
- Hovorka, V., reaction between iodic acid and hypophosphorous and phosphorous acids and their salts. I. and II., A., 1388, 1539.
- Howard, F. A. See Standard Oil Development Co.
- Howard, H. See Grasselli Chem. Co.
- Howard, O. O., mixer, (P.), B., 2.
- Howard, S., Bailey, A., and Multi-Color Dyers (1920), Ltd., [apparatus for] parti-colour dyeing of yarns, threads, and woven fabrics, (P.), B., 321.
- Howard, W. R., and Universal Oil Products Co., apparatus for treating [cracking] oils, (P.), B., 133.
- Howards & Sons, Ltd., Blagden, J. W., and Huggett, W. E., manufacture of synthetic menthol, (P.), B., 486.
- Howden, P. See Brit. "Rema" Manuf. Co., Ltd.
- Howden & Co., Ltd., J., and Hume, J. H., heat exchangers, (P.), B., 398.
- furnace fronts, (P.), B., 689.
- air-heating installation for [boiler] furnaces, (P.), B., 799.
- Howe, C. E., L series spectra of the elements from calcium to zinc, A., 655.
- Howe, M. See Sullivan, B., and West, R.
- Howell, G. S., apparatus for reducing ores, (P.), B., 669.
- Howell, L. G. See Johnston, N.

- Howell, O. R. See Henri, V.
- Howells, E., statistical theory of para- and dia-magnetism, A., 1505.
- Howells, E. V., and Morris-Jones, W., X-ray investigation of the copper-antimony system of alloys, A., 849.
- Howells, H. P., Little, B. H., and Andersen, H. P., synthesis of compounds related to apocynin and apocynol, A., 1586.
- Howells, H. P. See also Bogert, M. T.
- Howells, W. J., ternary system carbamide-ammonium nitrate-sodium nitrate, A., 1252.
- Hoves, D. A., chemical examination of gasolines and light mineral oils, B., 802.
- Howes, D. A., and Nash, A. W., action of potassium permanganate on unsaturated hydrocarbons, B., 596.
- Howes, D. A., and Nash, A. W., knock ratings of aromatic hydrocarbons, B., 596.
- Howes, E. L., colorimetric determination of acriflavine and neutral acriflavine, B., 393.
- Howes, H. W. See Childs, A. A., and Dimpleby, V.
- Howes, R. T. See Gard, E. W.
- Howey, J. H., magnetic behaviour of nickel and iron films condensed in vacuum on various metal backings, A., 281.
- Howitt, F. O., starch envelopes of pyrenoids, A., 825.
- Howitt, F. O., and Prideaux, E. B. R., macro-apparatus for cataphoresis, A., 568.
- Howitt, F. O. See also Prideaux, E. B. R.
- Howk, B. W., and Marvel, C. S., fatty acids of filter-press cake from spent soap lye, B., 24.
- Howland, F. See Burt, C. P.
- Howlett, L. E. See McLennan, J. C.
- Hoxton, L. G., pressure variation of specific heats of gases derived from compressibility data, A., 1508.
- Hoyer, E. See Verein. Chem. Werke Akt.-Ges.
- Hoyle, E. See Bracewell, M. F.
- Hoyle, J. C., toxic effects of irradiated ergosterol, A., 647.
- Hoyois, L., washing of materials such as ores, coals, etc., (P.), B., 86.
- separating apparatus for [wet] treatment of ores, coals, etc., (P.), B., 223.
- Hoyt, A. See Du Mond, J. W. M.
- Hoyt, F., structure of emission lines, A., 1491.
- Hradský, K., determination of mineral matter in coke, B., 128.
- Hrdlička, K., changes in methoxyl content in the carbonisation of lignite, B., 541.
- Hromatka, O. See Spáth, E.
- Hruban, J. See Stoklasa, J.
- Hsieh, C. Y., microscopical study of some coals from Szechuan, South-West China, B., 225.
- Hsu, F. Y. See Tsai, C.
- Hsu, Y. D., comparative methods of assay of Chinese ephedras, B., 1090.
- Huang, J. See Schroeter, G.
- Huang, T. C., and Wu, H., denaturation of proteins. X. Osmotic pressure of denatured egg-albumin and methaemoglobin in concentrated urea solutions, A., 1056.
- Hubáček, J. See Novák, H.
- Hubbard, D. See Carroll, B. H.
- Hubbard, J. R. See Allen, C. F. H.
- Hubbard, K. H. See Wiebe, R.
- Hubbard, L. MacB. See Herrmann, J.
- Hubbard, R. S., excretion of chloride in achlorhydria, A., 1309.
- Hubbard, R. S., and Deegan, J. K., action of *B. coli* on non-dextrose reducing substances of human blood, A., 819.
- Huber, C. J., and Flynn & Emrich Co., [boiler] furnace, (P.), B., 744.
- Hubert, E. See I. G. Farbenind. A.-G.
- Hubmann, O., production of fuels from brown coals and waste bituminous coals in the Lurgi plant, B., 800.
- Hubmann, O. See also Metallges. Akt.-Ges.
- Hucker, A. M. See Hucker, G. J.
- Hucker, G. J., and Hucker, A. M., number and type of bacteria in commercially prepared infant foods, B., 262.
- sanitary control of commercially prepared infant foods, B., 262.
- the Grindrod impact steriliser, B., 263.
- Hucks, R. T. See Imperial Chem. Industries, Ltd.
- Hudig, J. See Louwes, S. L.
- Hudson, A. A., apparatus for dyeing piece goods, (P.), B., 945.
- Hudson, C. S., relations between rotatory power and structure in sugar group. XXIX. Preparation of crystalline turanose, A., 1024.
- Hudson, C. S. See also Dale, J. K., Jackson, E. L., Montgomery, E. M., and Watters, A. J.
- Hudson, D. P. See Graesser-Monsanto Chem. Works, Ltd.
- Hudson, J. C., effects of two years' atmospheric exposure on the breaking load of hard-drawn non-ferrous wires, B., 1074.
- Hudson, J. H. See Sheppard, S. E.
- Hudson, L. See Cox, G. J.
- Hue, M. H., manufacture of agglomerated fuel, (P.), B., 176.
- Hueber, H., determination of titanium and iron in rocks, A., 54.
- Hückel, E., quantum theory of double linkings, A., 525.
- quantum theory of the double linking and its stereochemical relationships, A., 1349.
- Hückel, W., Danneel, R., Schwartz, A., and Gercke, A., stereochemistry of bicyclic ring-systems. V. $\Delta^{2,10}$ -Octahydronaphthalene, A., 76.
- Hückel, W., Neunhoeffer, A., Gercke, A., and Frank, E., changes in molecular structure during chemical reactions. I. Thermal decomposition of esters and rearrangements occurring thereby, A., 206.
- Hühn, G. See Bangert, H.
- Hürter, F., protein optimum for pregnant sows, A., 1614.
- Huerttle, K., and Goodyear-Zeppelin Corporation, gas container for aircraft, (P.), B., 761*.
- Huerttle, K. See also Goodyear-Zeppelin Corp.
- Huessy, W., homogeneous product from mineral oil and alcohol, (P.), B., 181.
- Huester, H. J., protecting aluminium and its alloys from corrosion, B., 992.
- Hüttenwerke Tempelhof A. Meyer, recovery of antimony from residues, (P.), B., 199.
- Hüttig, G. F., and Arbes, A., oxide hydrates. XXXI. System strontium oxide-water, A., 1373.
- Hüttig, G. F., and Arbes, A. [with Herrmann, Z., and Slonim, C.], oxide hydrates. XXVIII. System calcium oxide-water, A., 1372.
- Hüttig, G. F., and Frankenstein, W., oxide hydrates. XVIII. System magnesium oxide-water. XIX. System magnesium oxide-carbon dioxide, A., 293.
- Hüttig, G. F., and Kassler, R., oxide hydrates. XVII. System cobaltic oxide-water, A., 162.
- oxide hydrates. XXI. System cobaltous oxide-water. XXII. Catalytic activity of metallic cobalt prepared from different hydrated cobalt oxides, A., 543.
- Hüttig, G. F., and König, A., oxide hydrates. XXXII. Vanadium pentoxide-water. XXXIII. Niobium pentoxide-water. XXXIV. Tantalum pentoxide-water, A., 1538.
- Hüttig, G. F., and Kostelitz, O., oxide hydrates. XX. System aluminium oxide-water, A., 543.
- Hüttig, G. F., and Mytyzek, R., oxide hydrates. XXVI. System cadmium oxide-water, A., 996.
- oxide hydrates. XXX. System $\text{Ti}_2\text{O}_3 \cdot \text{H}_2\text{O}$, A., 1373.
- Hüttig, G. F., and Peter, A., oxide hydrates. XXIV. System nickelous oxide-water. XXV. System nickelic oxide-water, A., 700.
- Hüttig, G. F., and Toischer, K., oxide hydrates. XXVII. System beryllium oxide-water, A., 996.
- oxide hydrates. XXIX. Comparison and calculation of values of water vapour pressure of solid and liquid substances obtained by different methods, A., 1373.
- Hüttig, G. F., and Zörner, A., oxide hydrates. XVI. Active properties of hydrated oxides, A., 49.
- oxide hydrates. XXIII. Mode of combination of water in naturally occurring and artificially prepared hydrated ferric oxides, A., 723.
- Huff, L. C., and Universal Oil Products Co., dephlegmator or fractionating column, (P.), B., 694.
- apparatus for removing carbonaceous deposits from oil apparatus, (P.), B., 1014.
- refining of [hydrocarbon] oils, (P.), B., 1057.
- Huff, L. D., and Houston, W. V., appearance of forbidden lines in spectra, A., 1490.
- Huff, W. J., and Holtz, J. C., origin and decomposition of carbon disulphide in gas making. III. Chemical and thermodynamic effects in formation of organic sulphur compounds, B., 848.
- Huff, W. J., Logan, L., and Lusby, O. W., removal of sulphur impurities from combustible gases, (P.), B., 937.
- removal of sulphur compounds from gases, (P.), B., 1012.

- Huffman, C. F. See Reed, O. E.
- Huffman, E. H. [with Smith, G. McP.], additive compounds of copper halides and silver nitrate with benzyl sulphide, A., 759.
- Huffman, H. M., Parks, G. S., and Daniels, A. C., thermal data for organic compounds. VII. Heat capacities, entropies, and free energies of twelve aromatic hydrocarbons, A., 677.
- Huffman, H. M., Parks, G. S., and Thomas, S. B., thermal data for organic compounds. VIII. Heat capacities, entropies, and free energies of the isomeric heptanes, A., 1253.
- Huffman, H. M. See also Kelley, K. K., and Parks, G. S.
- Huffman, J. R. See Christiansen, J. A.
- Huffmann, C. F., Robinson, C. S., Winter, O. B., and Larson, R. E., effect of low-calcium, high-magnesium diets on growth and metabolism of calves, A., 1615.
- Huffmann, J. R., and Dodge, B. F., decomposition of methyl alcohol by catalysts composed of oxides of zinc and chromium, B., 49.
- Hugentobler, W. See Soc. Alther & Guex.
- Huggett, W. E. See Howards & Sons, Ltd.
- Hugh, W. E., and Kon, G. A. R., chemistry of the three-carbon system. XXIV. Regeneration of esters from their sodio-derivatives, A., 773.
- Hughes, A. C. See Phelps, S. M.
- Hughes, A. E. See Crockford, H. D.
- Hughes, A. L., and Jauncey, G. E. M., collisions of photons, A., 1340.
- Hughes, A. L., and Van Atta, C. M., second ionisation potential in potassium vapour, A., 1230.
- Hughes, C. H. See Semet-Solvay Eng. Corp.
- Hughes, C. M. C. See South Metropolitan Gas Co.
- Hughes, D. S., and Eckart, C., effect of motion of the nucleus on the spectra of Li I and Li II, A., 1328.
- Hughes, E. B. See Lampitt, L. H.
- Hughes, E. D., and Watson, H. B., reaction of bromine with aliphatic acids. IV. Succinic acid, A., 1406.
- Hughes, G. E. See Imperial Chem. Industries, Ltd.
- Hughes, L. M. See Mitchell, T. A.
- Hughes, T., production of normal magnesium carbonate and other magnesium compounds from magnesites, (P.), B., 57.
- Hughes, W. J., and Crane, H. B., trends in municipal zeolite water-softening, B., 304.
- Hughes Tool Co. See Scott, F. L.
- Hughson, D. T. See Krause, A. C.
- Hugill, H. R. See Westman, A. E. R.
- Hugill, W., and Rees, W. J., influence of iron borate on rate of inversion of quartz in silica bricks, B., 1110.
- Hugon. See Link.
- Hugoson, N. E. A. See Hixson, A. W.
- Hugouneng, L., and Couture, E., sterol of cod-liver oil and the photochemical action of some sterols, A., 46*.
- Hugues, E., [malic and tartaric] acid contents of grapes during ripening, B., 80.
- Hukumoto, Y., spectrographic investigation of hydrogen discharge tubes, A., 509.
- spectrographic investigation of the continuous hydrogen spectrum, A., 509.
- energy distribution in the continuous hydrogen spectrum, A., 509, 1337.
- relation between the continuous and the many-lined spectra of hydrogen, A., 969.
- Hulbert, R., and Herring, F. W., washing of rapid [sand] filters [for water], B., 122.
- Hulbert, E. O., ions and electrical currents in the upper atmosphere, A., 190.
- ionisation in the upper atmosphere; variation with longitude, A., 392.
- spectra of gases lighted with strong electrical discharges, A., 1225.
- Hulett, G. A., hydrolysis in standard cells, B., 1035.
- Hull, A. W. See Brit. Thomson-Houston Co., Ltd.
- Hull, F. E. See Buckner, G. D.
- Hull, P. O. See Imperial Chem. Industries, Ltd.
- Hull, R. H., and Blum, W., addition agents in copper electrotyping solutions, B., 1159.
- Hulse, R. E. See Dennis, L. M.
- Hulshof, H., swelling pressure and osmotic pressure, A., 690.
- Hulthén, E., physical interpretation of perturbations in band spectra, A., 1076.
- Hulthén, E. See also Bengtsson, E., and Grundström, B.
- Hultman, F. W., manufacture of rubber-like material, (L.), B., 999*.
- Hulubei, H., photo-electric cell for the ultra-violet; mechanism of sensitisation, A., 1013.
- preparation of pure hydrogen by means of a palladium electrolytic osmoregulator, A., 1136.
- Humboldt, E., utilisation of distillery by-products, B., 480.
- Humboldt Sulphur Co. See Crowley, A. J.
- Hume, E. M., and Maclean, I. S., vitamin-A and carotene, A., 505.
- relation of carotene to vitamin-A, A., 1480.
- Hume, J., and Colvin, J., decomposition of potassium hydrogen oxalate hemihydrate, A., 39.
- reactions in solids, A., 40.
- Hume, J. H. See Howden & Co., Ltd., J.
- Hume, W. F., Harwood, H. F., and Riley, H. L., analyses of Egyptian metamorphic rocks (schists), A., 56.
- Hume, W. R., rotary retort, (P.), B., 353*.
- Humeau, R. See Cornubert, R.
- Hume-Rothery, W., crystal structures of the B sub-groups and their connexion with the periodic table and atomic structures, A., 279.
- limits of application of the electrical conductivity method in determining the constitution of alloys, A., 1106.
- lattice constants of the elements, A., 1233.
- Humfeld, H., measurement of carbon dioxide evolution from soil, B., 876.
- Humfeld, H. See also Smith, N. R.
- Humm, W., testing of paper half-stuffs for strength, B., 609.
- Hummel, G. See Fischer, Hans.
- Hummel, H., electrolysis of urine, A., 105.
- Hummel, R., relation of bile acids to food cholesterol. II., A., 108.
- Hummel, R. See also Schönheimer, R.
- Humpert, K., and Staniolfabr. Burgdorf Akt.-Ges., production of [metallic] acid-resisting wrapping material, (P.), B., 773*.
- Humphrey, G. C. See Hart, E. B., and Steenbock, H.
- Humphrey, H. A., Buist, D. M., and Bansall, J. W., steam and electric power plant of Imperial Chemical Industries, Ltd., at Billingham, B., 1050.
- Humphrey, I. W., Bent, L. N., and Hercules Powder Co., refining of wood rosin, (P.), B., 249.
- Humphrey, I. W., and Hercules Powder Co., refining of rosin, (P.), B., 431.
- lacquer, (P.), B., 1120.
- Humphrey, W. G. See Conant, J. B.
- Humphreys, C. F. See Armstrong Cork Co.
- Humphreys, C. J., and De Bruin, T. L., spectrum of ionised xenon (Xe II), A., 265.
- Humphreys, C. J. See also Meggers, W. F.
- Humphreys, R. E., and Standard Oil Co., [production of gasoline from heavier hydrocarbons by] pressure distillation, (P.), B., 702.
- Humphreys & Glasgow, Ltd., and Bosler, W. T., apparatus for cooling coke, (P.), B., 600.
- Humphreys & Glasgow, Ltd., and Brady, E. J., apparatus for effecting contact between gases and divided solids, (P.), B., 886.
- apparatus for removing solid particles from gas, especially from hot gases issuing from gas generators or producers, (P.), B., 978.
- Humphreys & Glasgow, Ltd., and Carroll, L. D., manufacture of carburetted water-gas, (P.), B., 47.
- Humphreys & Glasgow, Ltd., and Chrisman, C. S., gas generators, (P.), B., 1055.
- Humphreys & Glasgow, Ltd., and Glasgow, A. G., gas generators or producers, (P.), B., 751.
- Humphreys & Glasgow, Ltd., and Hall, W. L., production of mixed oil-gas and water-gas, (P.), B., 751.
- Humphreys & Glasgow, Ltd., and Haug, J. S., apparatus for cooling coke, (P.), B., 404.
- gas generators, (P.), B., 649.
- Humphreys & Glasgow, Ltd., and Parsons, M., [electrically controlled] apparatus for automatic manufacture of [carburetted] water-gas, (P.), B., 938.
- Humphreys & Glasgow, Ltd., and Rusby, J. M., gas generators, (P.), B., 1101.
- Humphreys & Glasgow, Ltd., and Société de Construction d'Appareils pour Gaz à l'Eau et Gaz Industriels, automatic control apparatus for use in manufacture of water-gas and other cyclic processes, (P.), B., 274.
- Humphreys & Glasgow, Ltd., and Terzian, H. G., production of mixed oil-gas and water-gas, (P.), B., 751, 937, 977, 1139.
- manufacture of gas, (P.), B., 937.

- Humphries, C. H., cadmium plating, (P.), B., 245, 334, 618, 671, 823.
- Hun, (Mlle.) O. See Bourion, F.
- Hund, F., interpretation of molecular spectra. V. Excited levels of molecules with two like nuclei (H_2 , He_2 , Li_2 , N_2 , N_2^+ . . .), A., 1226.
- significance and prediction of molecular spectra, A., 1343.
- explanation and prediction of molecular spectra, A., 1497.
- Hundertmark, H. See Lehmstedt, K.
- Hunscher, H. A., metabolism of women during the reproductive cycle. II. Calcium and phosphorus utilisation in lactation, A., 635.
- Hunscher, H. A. See also Macy, I. G.
- Hunt, G. E. See Carroll, W. E., and Hamilton, T. S.
- Hunt, H. [with Schumb, W. C.], dissociation of carbon dioxide in the electrodeless discharge, A., 1258.
- Hunt, H. See also Schumb, W. C., and White, Priscilla.
- Hunt, H. D., ore-floatation apparatus, (P.), B., 150.
- Hunt, J. K. See Williamson, R. V.
- Hunt, M. H. See Westinghouse Electric & Manuf. Co.
- Hunt, R. See Renshaw, R. R.
- Hunt, T. C., alcohol and blood-sugar in diabetes, A., 492.
- Hunt & Winterbotham, Ltd. See Toyne, F. D.
- Hunten, K. W. See Hoover, G. I.
- Hunter, A., and Dauphinee, J. A., arginase method for arginine determinations; analysis of proteins, A., 373.
- Hunter, A. See also Dauphinee, J. A.
- Hunter, G., colour reactions of thioglyoxalines (thioliminazoles) with sodium diazobenzene-*p*-sulphonate, A., 1596.
- Hunter, G. G. See Trenzen, C.
- Hunter, H. See Burgess, S. G.
- Hunter, R. F., unsaturation and tautomeric mobility of heterocyclic compounds. I. Benzthiazole and dihydrobenzthiazole derivatives, A., 483.
- Hunter, R. F., and Jones, J. W. T., unsaturation and tautomeric mobility of heterocyclic compounds. II. α - and $\beta\beta$ -Naphthathiazoles, A., 934.
- unsaturation and tautomeric mobility of heterocyclic compounds. III. Effect of substituents on mobility of the aminobenzthiazole system and bromination of *s*-diarylthiocarbamides; ultra-violet absorption of mobile and static semicyclic amidines of the benzthiazole group, A., 1452.
- Hunter, S., [air-blast] extraction of dust from minerals such as coal, (P.), B., 1015.
- Hunter, T. G. See Imperial Chem. Industries, Ltd.
- Hunter, T. H. See Coppée Co. (Great Britain), Ltd.
- Huntington, A. See Challenger, F.
- Hupfeld, H. H. See Meitner, L.
- Huppert, relative fertilising action of sodium nitrate, calcium nitrate, and Chile saltpetre, B., 631.
- Hurd, C. D., and Bennett, C. W., decomposition of β -methylhexan- β -ol, A., 191.
- Hurd, C. D., and Carnahan, F. L., action of heat on ethylamine and benzylamine, A., 1562.
- Hurd, C. D., and Greengard, H., pyrolysis of aryl allyl sulphides, A., 1285.
- Hurd, C. D., Greengard, H., and Pilgrim, F. D., behaviour of allyl derivatives of pyrocatechol and resorcinol towards heat, A., 768.
- Hurd, C. D., and Martin, K. E., keten from acetic acid, A., 195.
- Hurd, C. D., Meinert, R. N., and Spence, L. U., allene and methylacetylene tetrabromides, A., 736.
- Hurd, C. D., and Puterbaugh, M. P., concentration of hydrogen peroxide solutions, A., 555.
- Hurd, C. D., and Spence, L. U., pyrolysis of hydrocarbons: *n*- and iso-butan-2-ol, A., 58.
- pyrolysis of hydrocarbons: isobutene, A., 191.
- Hurd, L. C., Kemmerer, G. I., and Meloche, V. W., ammonates of copper selenite, A., 1536.
- Hurd, L. C., and Lenher, V., ammonates of copper selenate, A., 1536.
- Hurley, P. See Ryan, H.
- Hurley, T. F. See Lander, C. H.
- Huron Industries, Inc., and Green, B. E., sealing rings for rotary kilns and dryers, (P.), B., 1136.
- Hurrell, G. C., homogenising machine, (P.), B., 539*.
- Hurwitz, E. See Mohlman, F. W.
- Hurxthal, A. O., and Proctor & Schwartz, Inc., filter-cake loop dryer; loop dryer [for fabrics], (P.), B., 887.
- Husa, W. J., effect of stabilisers in lard in relation to its use in ointment of potassium iodide, N.F.V., B., 1003.
- Husa, W. J., and Enz, W. W. F., stability of solutions of arsenious and mercuric iodide, U.S.P. X, B., 585.
- Hussey, E. H., and Bauer Bros. Co., attrition mills, (P.), B., 537.
- Hussey, R. E. See Scherer, P. C., jun.
- Hussey, S. C., Marvel, C. S., and Hager, F. D., new cyclic azoxy-compound, A., 774.
- Hussong Dyeing Machine Co., dyeing apparatus, (P.), B., 238.
- Hutchin, S. See Blair, Campbell, & McLean, Ltd.
- Hutchinson, A. H., Lucas, C. C., and McPhail, M., chemical and physical variations of waters of the strait of Georgia in relation to phytoplankton, A., 385.
- Hutchinson, A. H., and Newton, D., specific effects of monochromatic light on the growth of yeast, A., 958.
- Hutchison, A. W. See Engel, K. H.
- Hutchison, W. K. See Gas Light & Coke Co.
- Hutchisson, E., intensities in band spectra, A., 831.
- band spectra intensities for symmetrical diatomic molecules, A., 1331.
- Hutschenreuter, R. See Langenbeck, W.
- Hutt, F. B., effect of thyroid on the fowl, A., 504.
- Hutt, G. M., geology of the fireclays of southern Saskatchewan, A., 569.
- Huttner, K., and Knappe, S., ψ -halogens. VII. Volumes of cyanogen derivatives of volatile hydrides, A., 876.
- Huttner, K. See also Birckenbach, L.
- Huxley, L. G. H., corona discharge in nitrogen, A., 1074.
- Huybrechts, M., and De Langeron, N. A., solubility of lead sulphate in water and in sodium sulphate solutions, A., 537.
- Huyser, H. W. See Romburgh, P. van, and Ruzicka, L.
- Huyzer, W. J. A., production of cleansing and polishing compositions, (P.), B., 1097.
- Hyatt, J. B., trichloroethylene as a solvent for bituminous materials in routine analysis, B., 648.
- Hyde, E. C., and Rose, W. C., arginine feeding and creatine-creatinine excretion in man, A., 110.
- Hyde, F. B. See Conant, J. B.
- Hyde, J. F., and Scherp, H. W., apparatus for micro-catalytic hydrogenation, A., 1304.
- Hyde, J. F. See also Conant, J. B.
- Hyde, R. W., preparation of [an iron] aluminothermic mixture, (P.), B., 719, 823*.
- Hyde, R. W., and Dwight & Lloyd Metallurgical Co., cement manufacture, (P.), B., 665.
- recovering metals [e.g., lead from ores], (P.), B., 1115.
- Hydraulic Brake Co., and Tseng, A. T. K., fluids for use in fluid-pressure apparatus, (P.), B., 590.
- Hydraulic-Press Brick Co. See Ivery, S. H.
- Hydro Nitro Société Anonyme, production of materials containing phosphorus and nitrogen suitable for use as fertilisers, (P.), B., 1001.
- Hylleraas, E. A., ionisation potential of atomic configurations with two electrons, A., 267.
- electron affinity of the hydrogen atom according to wave mechanics, A., 518, 1231.
- wave-mechanical calculation of the grating energy and grating constant of lithium hydride, A., 1234.
- the ground term of the two-electron problem of H^- , Hc , Li^+ , Be^{++} , etc., A., 1487.
- Hyman, H. H., resonance ($B-A$) band system of the hydrogen molecule, A., 1226.
- Hyman, H. H., and Jeppesen, C. R., moment of inertia of hydrogen from band spectra, A., 509.
- Hyman, J. See Wagner, C. R.
- Hymas, F. C. See Cocking, T. T.
- Hynd, A., and Rotter, D. L., metabolism of animals on a carbohydrate-free diet. I. Distribution of glycogen and fat in the liver, A., 1470.
- Hynes, J. J. See Saunders, M. W.

- I. G. Farbenind. A.-G., manufacture of condensation products of the benzodiazine series, (P.), B., 8.
- manufacture of azo-dyes [pigments and ice colours], (P.), B., 9, 365, 366, 454, 550, 811, 982, 983.
- manufacture of substitution products of sulphur dyes, (P.), B., 10.

- I. G. Farbenind. A.-G.**, manufacture of finely-divided metals [iron], (P.), B., 18.
 protecting carbon electrodes from consumption in the atmosphere, (P.), B., 21.
 electrical insulation [material], (P.), B., 21.
 manufacture of magnetic cores of high permeability, (P.), B., 21.
 manufacture of intaglio printing colours, (P.), B., 26.
 manufacture of plastic or elastic polymerisation products of diolefines, (P.), B., 26.
 filtration of solutions [to render them homogeneous], (P.), B., 41.
 treatment of carbonaceous substances under pressure for production of valuable liquid products, (P.), B., 46.
 manufacture of non-knocking engine fuels of the benzine type, (P.), B., 48, 894.
 recovery of diolefines, (P.), B., 50.
 manufacture of condensation products [acetonitrile] from acetylene and ammonia, (P.), B., 50.
 manufacture of aliphatic and *cyclo*aliphatic saturated sulphinic acids, (P.), B., 50.
 manufacture of carbonic acid esters of the glycols, (P.), B., 50.
 manufacture of acetone from acetylene, (P.), B., 50, 807.
 manufacture of azo-dyes [for lakes and wool], (P.), B., 51.
 manufacture of nitrogenous vat dyes, (P.), B., 51, 365, 453.
 manufacture of highly concentrated nitric acid, (P.), B., 57.
 production of compact masses from pulverulent metal oxides, (P.), B., 57.
 manufacture of readily condensable nitric oxides [nitrogen peroxide], B., 58.
 transferring veining or graining of wood on to printing plates, (P.), B., 61.
 manufacture of finely-divided metal powders obtained from carbonyls, (P.), B., 64.
 removal from metal powders of the impurities which form volatile compounds with oxygen, (P.), B., 64.
 production of stable foams and emulsions, (P.), B., 66.
 production of artificial [water-soluble] resins, (P.), B., 69.
 manufacture of rubber tyres, (P.), B., 71.
 manufacture of artificial [casein] compositions and articles made therefrom, (P.), B., 71.
 photographic or photo-mechanical reproduction of surfaces, (P.), B., 83.
 elimination of mercaptans or related compounds from air, (P.), B., 84.
 manufacture of carbon black, (P.), B., 90, 405, 545.
 apparatus for production of combustible gases from granular and dust fuels, (P.), B., 91.
 purification of industrial gases with the recovery of by-products, (P.), B., 92.
 manufacture of hydroaromatic hydrocarbons, (P.), B., 93.
 manufacture of unsaturated hydrocarbons of low b. p., (P.), B., 94.
 manufacture of acetaldehyde from acetylene, (P.), B., 94, 807.
 manufacture of *vic*-trihalogenobenzenes, (P.), B., 95.
 manufacture of alkoxy-3-[hydr]oxythionaphthens [alkoxy-thioindoxyls], (P.), B., 95.
 manufacture of yellow azo-dyes [for wool], (P.), B., 95.
 manufacture of disazo-dyes [for wool], (P.), B., 95.
 manufacture of [black tetrakis-]azo-dyes [for printing on silk], (P.), B., 95.
 manufacture of plastic masses from cellulose ethers, (P.), B., 99.
 manufacture of materials from cellulose ethers and esters, (P.), B., 99.
 manufacture of cellulose ethers, (P.), B., 99, 414.
 manufacture of carbon papers, etc., (P.), B., 100.
 process for the manufacture of alkali iodates and its application to the manufacture of oxygen, (P.), B., 102.
 manufacture of white titanic acid, (P.), B., 102.
 treatment of gases and vapours with electric arc discharge, (P.), B., 108.
 separation of visible rays from ultra-violet rays by filtration, (P.), B., 108.
 manufacture of artificial [polyvinyl] materials, (P.), B., 111.
 manufacture of synthetic rubber, (P.), B., 112, 113, 205, 251, 521, 626, 873.
 manufacture of treads for tyres, (P.), B., 113.
 prevention of mould in rubber, (P.), B., 113.
 manufacture of higher alcohols, acetone, etc., (P.), B., 118.
 denaturing of alcohol, (P.), B., 119.
 anaesthetics; [stabilisation of tribromoethyl alcohol], (P.), B., 121.
- I. G. Farbenind. A.-G.**, manufacture of valuable photochemical [antirachitic] products, (P.), B., 121.
 printing with dyestuffs photographic gelatin layers, (P.), B., 121.
 compositions for match heads and striking surfaces, (P.), B., 122.
 pressure vessel for transport and evaporation of liquefied gases of low b. p., (P.), B., 127.
 manufacture of viscous [lubricating and insulating] oils, (P.), B., 134.
 refining of crude paraffin wax, (P.), B., 134.
 production of carbon disulphide, (P.), B., 135, 946.
 manufacture of organic bases [from acetylene and ammonia or amines], (P.), B., 135.
 manufacture of hydrogenated aromatic carboxylic esters and acids, (P.), B., 136.
 manufacture of condensation products of the benzanthrone series, (P.), B., 136.
 manufacture of sulphur dyes, (P.), B., 136, 317, 455.
 manufacture of artificial cork masses, (P.), B., 138.
 production of fast prints [with azo-chrome dyes] on vegetable fibres, (P.), B., 139.
 manufacture of mixtures of nitrogen and hydrogen for the synthesis of ammonia, (P.), B., 143.
 production of [pale, fatty] organic acids, (P.), B., 155.
 manufacture of unsaturated fatty acids, (P.), B., 155.
 manufacture of products resembling [natural] wax, (P.), B., 156.
 manufacture of lacquers, filling or priming compositions, etc., (P.), B., 157.
 preventing the deposition of driers in linseed oil varnishes, (P.), B., 157.
 manufacture of plastic masses, (P.), B., 157.
 manufacture of oil lacquers and varnishes, (P.), B., 157, 338.
 manufacture of granular mixed fertilisers containing ammonium nitrate, (P.), B., 163.
 production of products from organised substances, (P.), B., 164.
 production of photographic prints, (P.), B., 167.
 photographic printing process, (P.), B., 168.
 kinematograph films, (P.), B., 168.
 manufacture of agents for combating and destroying pests, (P.), B., 168.
 substantially suppressing phosgene-formation when extinguishing fires with carbon tetrachloride, (P.), B., 169.
 recovery of valuable products from varieties of coal, tars, mineral oils, etc., (P.), B., 177.
 manufacture of gases and grates therefor, (P.), B., 177.
 manufacture of gases [from the products of destructive hydrogenation of coal], (P.), B., 177.
 extraction of bituminous materials by means of solvents, (P.), B., 178.
 production of low b. p. oils, etc., by destructive hydrogenation of coals, oils, etc., (P.), B., 179.
 conversion of hydrocarbons of high b. p. into those of low b. p., (P.), B., 179.
 manufacture of hydrocarbons of high b. p., (P.), B., 180.
 manufacture of insulating oils, (P.), B., 180.
 manufacture of lubricating and insulating oils, (P.), B., 180.
 recovery of oils from industrial residues, (P.), B., 181.
 emulsifying agents, (P.), B., 181.
 manufacture of primary alcohols [from alkylene oxides], (P.), B., 182.
 manufacture of vat dyes, (P.), B., 183.
 manufacture of polyazo-[green] dyes [for cotton], (P.), B., 183.
 manufacture of artificial threads, (P.), B., 184, 319, 609.
 manufacture of shaped masses [linoleum, etc.] from cellulose derivatives of higher fatty acids, (P.), B., 185.
 adhesive paper or fabric, (P.), B., 185.
 manufacture of selvedge warps and effect threads in woollen fabrics, (P.), B., 185.
 coloured cellulose films, (P.), B., 185.
 dyeing of ethers or esters of cellulose or transformation products thereof, (P.), B., 185.
 treatment of raw silk, fabrics thereof, or mixed fabrics containing the same, (P.), B., 186.
 production of nitrites and nitrates [from ammonia], (P.), B., 187.
 manufacture of metal carbonyls, (P.), B., 189, 612, 1065.
 manufacture of ceramic products, (P.), B., 190.
 manufacture of polishing materials [in powder form], (P.), B., 203.

- I. G. Farbenind, A.-G., [lacquer for] protection of metal surfaces against corrosion, (P.), B., 204.
 production of conversion products of rubber, (P.), B., 205.
 improving the strength of articles prepared from rubber, (P.), B., 205.
 administration of anaesthetics, (P.), B., 218.
 capsule packing, (P.), B., 225.
 apparatus for feeding combustible dust into receptacles under pressure by means of valves, (P.), B., 229.
 manufacture of hydrocarbons, (P.), B., 230.
 catalytic decomposition of hydrocarbons, (P.), B., 231.
 manufacture of organic acids and esters, (P.), B., 233.
 manufacture of derivatives of carbazole, (P.), B., 233.
 manufacture of water-soluble secondary diazoamino-compounds and of azo-dyes therefrom, (P.), B., 233.
 manufacture of anthraquinone and its derivatives [from *p*-benzoquinone or α -naphthaquinone and α -butadienes], (P.), B., 233.
 manufacture of acid wool dyes, (P.), B., 234, 455, 942.
 felting of animal hair, (P.), B., 236.
 manufacture of piece-dyed woollen fabrics containing effects of silk, (P.), B., 237.
 dyeing and printing natural or artificial fibre with sulphur and vat dyes, (P.), B., 237.
 manufacture of vulcanised rubber, (P.), B., 251, 293.
 manufacture of water-soluble fertilisers, (P.), B., 259.
 immunisation of seed grain, (P.), B., 259.
 manufacture of perfumes, (P.), B., 264.
 carrying out of exothermic gas reactions, (P.), B., 268.
 filling material for gas-washing towers, (P.), B., 270.
 manufacture of acetaldehyde and acetic acid, (P.), B., 275.
 manufacture of urea and substitution products thereof, (P.), B., 275.
 manufacture of nitrogenous condensation products from acetyl-ene and ammonia, (P.), B., 275.
 catalytic hydrogenation of aromatic bases, (P.), B., 275.
 manufacture of [halogenated] derivatives of terephthalic acid, (P.), B., 275.
 manufacture of arylcarboxylic acid amide-*o*-thioglycollic acids and hydroxythionaphthens [*o*-amidocarbonylarylthioglycollic acids and thioindoxyls], (P.), B., 276.
 manufacture of condensation products of naphthalene and naphthalene derivatives, (P.), B., 276.
 production of highly halogenated derivatives of pyranthrone, (P.), B., 276.
 manufacture of vat dyes [of the pyrazolanthrone series], (P.), B., 277.
 manufacture of [red] vat dyes [of the pyrazolanthrone series], (P.), B., 277.
 production of *N*-dihydro-1:1':2:2'-anthraquinoneazine fast to chlorine, (P.), B., 277.
 manufacture of developing dyes, (P.), B., 277.
 production of special [cross-dyeing] effects on mixed fabrics of cotton and acetate silk, (P.), B., 280.
 preparation of hydrazine from ammonia by electrical discharge, (P.), B., 282.
 manufacture of hydrogen and phosphoric acid, (P.), B., 282, 418, 711.
 wood preserving and disinfecting, and seed-grain immunising, (P.), B., 285.
 manufacture of [metals for production of] metal carbonyls, (P.), B., 289.
 manufacture of metallic deposits from metal carbonyls, (P.), B., 289.
 manufacture of artificial masses, lacquers, and solutions containing both cellulose esters and rubber, (P.), B., 293.
 manufacture of condensation products of cyanamide and formaldehyde, (P.), B., 293.
 increasing the germination of seed, (P.), B., 298.
 manufacture of phenylcarboxylic acid compounds [carboxy-phenylaminoquinolines], (P.), B., 302.
 manufacture of difficultly soluble salts of organic bases and alkaloids, (P.), B., 302.
 manufacture of hormones, (P.), B., 302.
 manufacture of physiologically active substances from the anterior lobes of the hypophysis, (P.), B., 302, 1004.
 apparatus for separation from solid residues of oils obtained in the destructive hydrogenation of varieties of coal, tars, mineral oils, etc., under pressure, (P.), B., 310.
- I. G. Farbenind, A.-G., manufacture of water-soluble products from lignite and similar fossil materials, (P.), B., 311.
 purification of hydrocarbon oils, (P.), B., 313.
 manufacture of products of a high stage of oxidation from hydrocarbons, (P.), B., 314.
 purification of paraffin wax, (P.), B., 314.
 manufacture of polymerisation products of γ -butylene [*iso*-butylene] and of trimethylethylene, (P.), B., 314.
 manufacture of olefines, (P.), B., 314, 854.
 manufacture of sulphonic acids [wetting-out, cleansing, and emulsifying agents], (P.), B., 315.
 manufacture of divinyl and homologues thereof, (P.), B., 315.
 manufacture of *N*-[hydr]oxyethyl derivatives of 2-amino-1-oxybenzene [*o*-aminophenol], (P.), B., 315.
 manufacture of water-soluble condensation products and technical applications thereof, (P.), B., 315.
 manufacture of azine derivatives, (P.), B., 315.
 manufacture of 2-[4-]alkylbenzanthrones, (P.), B., 315.
 manufacture of wetting agents, emulsifying agents, etc., (P.), B., 315, 362.
 manufacture of anthraquinone- and benzanthronecarboxylic acids, (P.), B., 316.
 production of vat dyes of the anthraquinone series and intermediate products therefor, (P.), B., 316.
 manufacture of vat dyes of the anthraquinone [pyrazol-anthrone] series, (P.), B., 316.
 manufacture of vat dyes of the *N*-dihydro-1:2:2':1'-anthraquinoneazine series, (P.), B., 316.
 manufacture of blue [azino] dyes of the anthracene series which contain halogens, (P.), B., 316.
 manufacture of azo-dyes insoluble in water [ice colours and pigments], (P.), B., 316, 366, 502, 942, 1020.
 manufacture of artificial silk, (P.), B., 319.
 diminishing swelling in cellulose and cellulose products, (P.), B., 319.
 manufacture of [azo]-dyes on the fibre, (P.), B., 320, 944.
 protection of wool, fur, etc., from attack by moth, (P.), B., 321, 416, 1024, 1025.
 treatment of salt masses, (P.), B., 323.
 manufacture of shaped articles of metallic oxides, (P.), B., 324.
 production of high-percentage manganese dioxide, (P.), B., 324.
 manufacture of nitric oxide [and chlorides or oxychlorides] from nitrosyl chloride, (P.), B., 325.
 recovery of sulphur from solutions of alkali polysulphides, (P.), B., 325.
 production of pure sulphur, (P.), B., 325.
 manufacture of boron trifluoride, (P.), B., 325.
 sparking plugs, (P.), B., 326.
 improving the resistance to corrosion of magnesium alloys, (P.), B., 332.
 pre-treating etching plates of magnesium alloys for photo-mechanical printing purposes, (P.), B., 332.
 improving the efficiency of galvanic battery depolarising compositions comprising manganese dioxide and graphite, (P.), B., 335.
 manufacture of stable highly chlorinated train oils, (P.), B., 336.
 manufacture of lacquers, etc., (P.), B., 338.
 anaesthetics, (P.), B., 348.
 manufacture of insecticides, fungicides, bactericides, and veterinary medical preparations, (P.), B., 348.
 manufacture of compounds of diphenolisatins [3:3'-di-(*p*-hydroxyphenyl)oxindoles], (P.), B., 349.
 manufacture of quinoline compounds containing an aliphatic amino-substituted side-chain, (P.), B., 349.
 photographic reversal process, (P.), B., 350.
 separation of (A) hydrocarbon mixtures, (B) liquid mixtures, by fractional distillation, (P.), B., 358.
 manufacture of (A) organic acids, (B) organic compounds containing oxygen [from carbon monoxide and alcohols, ethers, esters, or aldehydes], (P.), B., 361.
 manufacture of nitriles, (P.), B., 361.
 manufacture of isatins, (P.), B., 361, 982.
 manufacture of sulphonic acids of the halogenonitrodiaryl ketones and sulphones, (P.), B., 362.
 manufacture of sulphonated isatoic anhydrides and of the corresponding *o*-aminocarboxylic acids therefrom, (P.), B., 362.
 manufacture of derivatives of dinaphthylene dioxide, (P.), B., 362.

I. G. Farbenind. A.-G., manufacture of dinaphthylene dioxide quininc, (P.), B., 362.
 manufacture of 4-methyl-6-halogenohydroxythionaphthens [6-halogeno-4-methylthioindoxyls], (P.), B., 362.
 manufacture of aralkylamines and their derivatives, (P.), B., 362.
 manufacture of *o*-carboxyamido-arylthioglycollic acids, (P.), B., 363.
 manufacture of condensation products of polynuclear compounds, (P.), B., 363.
 manufacture of condensation products of the anthraquinone series [di-*o*-carboxyanilinoanthraquinones], (P.), B., 363.
 manufacture of 2-[4-]methylbenzanthrones, (P.), B., 363.
 manufacture of substitution products of the anthanthrone series, (P.), B., 363.
 manufacture of diazoamino-compounds, (P.), B., 364.
 manufacture of water-soluble compounds of indigoid dyes, (P.), B., 364.
 manufacture of new dyes and dye intermediates of the dinaphthylene dioxide series, (P.), B., 364.
 manufacture of vat dye mixtures which give direct black dyeings, (P.), B., 365.
 manufacture of compounds having an affinity for cotton, (P.), B., 365.
 manufacture of vat dyes of the anthraquinone series, (P.), B., 365, 453, 707, 755, 897, 942.
 treatment of azo-dyes [removal of *N*-nitroso-groups from aminodiphenylamine ice colours], (P.), B., 366.
 manufacture of colour lakes and pigment dyes, (P.), B., 366.
 production of dyeings and prints, (P.), B., 369.
 improving the dyeing capacity of hydrated cellulose, (P.), B., 370.
 impregnation of fibrous materials, (P.), B., 370.
 protection of wool, fur, hair, etc., against textile pests, (P.), B., 371.
 manufacture of cupric cyanic and thioeyanic compounds, (P.), B., 373.
 manufacture of catalysts for oxidation of hydrocarbons, (P.), B., 373.
 electric accumulator plates, (P.), B., 380.
 manufacture of polymerisation products of diolefines [artificial rubber], (P.), B., 385.
 vulcanisation of synthetic rubber, (P.), B., 385.
 activation of proteases, (P.), B., 390.
 manufacture of [formaldehyde-bisulphite] derivatives of amino-aryl antimony compounds [stibinic acids], (P.), B., 394.
 manufacture of photographic surfaces, (P.), B., 394.
 photographic developers, (P.), B., 395.
 treatment of gases containing hydrogen and unsaturated hydrocarbons, (P.), B., 406.
 manufacture of light-coloured [oxidation] products from paraffin wax, montan wax, etc., (P.), B., 406.
 manufacture of ethylene from acetylene, (P.), B., 408.
 hydration of [propylene and higher] olefines, (P.), B., 408.
 oxidation of organic compounds [hydrocarbons] of high mol. wt., (P.), B., 409.
 separation of formic acid from acetic acid, (P.), B., 409.
 manufacture of organic acids and their salts, (P.), B., 409.
 manufacture of water-soluble condensation products; [synthetic tanning agents and resists for wool or silk], (P.), B., 410.
 manufacture of [wax-like] chlorinated compounds of naphthalene, (P.), B., 410.
 manufacture of halogenoarylthioglycollic acids, (P.), B., 410.
 manufacture of bromino-substituted arylthioglycollic acids, (P.), B., 410.
 manufacture of *o*-arylcaboxyamidothioglycollic [*o*-amidocarboxylarylthioglycollic] acids, (P.), B., 410.
 manufacture of substitution products of dibenzpyrenequinones, (P.), B., 411.
 manufacture of acid dyes of the triphenylmethane series, (P.), B., 411.
 manufacture of preparations for oiling fibrous materials, (P.), B., 413.
 manufacture of chemical products from wood, (P.), B., 414.
 manufacture of waterproof paper or pasteboard, (P.), B., 414.
 feed apparatus for machines for depulping fibre-containing leaves, (P.), B., 415.
 dyeing of mixed fabrics containing acetate silk and the manufacture of dye products suitable therefor, (P.), B., 416.

I. G. Farbenind. A.-G., printing and dyeing, (P.), B., 416.
 printing with vat dyes, (P.), B., 416.
 process and apparatus for operating with ammonia, (P.), B., 418.
 manufacture of nitrous oxide from ammonia, (P.), B., 419.
 manufacture of metal [iron] powders suitable for magnet cores, (P.), B., 426.
 [positive plates for] electric accumulators [having an alkaline electrolyte], (P.), B., 428.
 manufacture of liquid or solid products by gaseous reaction under the influence of silent electrical discharge, (P.), B., 429.
 vulcanisation of natural or artificial rubber, (P.), B., 432.
 recovery of enzymes, (P.), B., 437.
 denaturing agents for alcohol, (P.), B., 437.
 manufacture of organic mercury compounds [mercurisation of benzene], (P.), B., 441.
 condensation of vapours, (P.), B., 444.
 production of [carbonaceous] artificial materials, (P.), B., 448.
 conversion of coal, tars, mineral oils, etc., into fuels of low b. p., (P.), B., 449.
 separation of hydrogen from gaseous mixtures, (P.), B., 449.
 separation of unsaturated hydrocarbons from gaseous mixtures, (P.), B., 449.
 manufacture of hydrocarbons from tars, mineral oils, and similar liquid hydrocarbon materials, (P.), B., 449.
 manufacture of highly concentrated paraffin wax, (P.), B., 451.
 manufacture of lubricating oils, (P.), B., 451, 650.
 manufacture of motor fuels, (P.), B., 451, 704, 806, 979.
 manufacture of ethylene [from acetylene], (P.), B., 452.
 production of esters of α -hydroxycarboxylic acids, (P.), B., 452.
 manufacture of *N*-[hydroxyethyl derivatives of nuclear substitution products and homologues of 4-amino-1-oxybenzene [*p*-aminophenol], (P.), B., 452.
 manufacture of derivatives of naphthalene [from *p*-benzoquinones and α -butadienes], (P.), B., 452.
 manufacture of oxythionaphthens [thioindoxyls], (P.), B., 452.
 dehydration of vapour mixtures containing acetic anhydride and water, (P.), B., 452.
 manufacture of glacial acetic acid from aqueous acetic acid, (P.), B., 452, 1015, 1142.
 manufacture of 1-halogeno-2-aminonaphthalene [naphthylamine]sulphonic acids, (P.), B., 453.
 manufacture of halogen derivatives of the dibenzanthrone and isodibenzanthrone series, (P.), B., 453.
 manufacture of derivatives of pyranthrone, (P.), B., 453.
 manufacture of vat dyes [of the isodibenzanthrone series], (P.), B., 453.
 manufacture of derivatives of mono-aminodibenzopyrenequinones, (P.), B., 453.
 manufacture of yellow [pyrazolone] azo-dyes [for wool, silk, and lakes], (P.), B., 454.
 manufacture of [mordant] azo-dyes, (P.), B., 454.
 manufacture of [green] polyazo-dyes, (P.), B., 454.
 manufacture of *o*-hydroxyazo-dyes and of metal compounds therefrom, (P.), B., 454.
 manufacture of dyes of the safranin series, (P.), B., 455.
 manufacture of viscose, (P.), B., 456.
 manufacture of plastic masses from cellulose derivatives, (P.), B., 457.
 improvement of acylcellulose, (P.), B., 457.
 manufacture of mixed ethers of carbohydrates, (P.), B., 457.
 manufacture of materials for use in dyeing or printing, (P.), B., 457.
 dyeing of viscose silk, (P.), B., 457.
 dyeing or colouring higher fatty acids, (P.), B., 457.
 manufacture of discharge basic dyeings [with synthetic mordants], (P.), B., 458.
 printing fabrics in [ice] colours on aniline-black, (P.), B., 458.
 manufacture of vegetable [immunised] effect threads, (P.), B., 458.
 manufacture of crayons and sealing wax, (P.), B., 470.
 manufacture of artificial rubber and rubber-like masses, (P.), B., 471.
 manufacture of latex-like emulsions and rubber-like masses, (P.), B., 471.
 manufacture of colouring materials for colouring materials of the nature of rubber, (P.), B., 471.
 manufacture of agents for use in vulcanising rubber, (P.), B., 472.

- I. G. Farbenind. A.-G., vulcanisation of rubber, (P.), B., 472, 572.
 manufacture of mixed fertilisers, (P.), B., 475, 681.
 manufacture of [therapeutically active] basic nitro-derivatives of 9[ms]-aminoacridine, (P.), B., 486.
 apparatus for carrying out endothermic catalytic reactions, (P.), B., 493.
 manufacture of catalysts of high mechanical stability, (P.), B., 493.
 manufacture of catalysts containing free phosphoric acid, (P.), B., 493.
 refining of active carbon, (P.), B., 493.
 destructive hydrogenation of coal, tars, mineral oils, etc., (P.), B., 493, 752.
 production of refined hydrocarbon oils, etc., (P.), B., 499.
 manufacture of butylene from ethylene, (P.), B., 500.
 concentration of aqueous acetic acid, (P.), B., 500.
 hydrogenation of polyhydroxy-compounds [glycerol from dextrose, etc.], (P.), B., 500.
 manufacture of organic phosphorus compounds [moth-proofing agents], (P.), B., 500.
 manufacture of aromatic nitriles, (P.), B., 501.
 manufacture of aromatic aminosulphochlorides substituted in the amino-group [*N*-substituted arylaminesulphonyl chlorides], (P.), B., 501.
 (A) fire-extinguishing and (B) fire-proofing compositions, (P.), B., 501.
 manufacture of sulphonic acids of α -aminoethylnaphthalene, (P.), B., 501.
 manufacture of nitro-compounds [of 2:4-dihydroxyquinolines], (P.), B., 501.
 manufacture of condensation products of polynuclear hydrocarbon compounds and olefines [wetting agents], (P.), B., 501.
 manufacture of anthanthrone derivatives, (P.), B., 501.
 manufacture of [vat] dyes [of the benzanthrone series], (P.), B., 502.
 manufacture of nitrogenous vat dyes [of the dibenzanthrone series], (P.), B., 502.
 manufacture of vat dyes containing nitrogen [from pyrazol-anthronebenzanthrones], (P.), B., 502.
 manufacture of vat dyes [of the pyranthrone series], (P.), B., 502.
 manufacture of acid wool dyes [of the anthraquinone series], (P.), B., 502.
 manufacture of monoazo-[chrome wool] dyes, (P.), B., 502.
 manufacture of cellulose esters, (P.), B., 504.
 manufacture of esters of cellulose or other carbohydrates, (P.), B., 504.
 manufacture of acetylcellulose, (P.), B., 504.
 manufacture of chlorinated organic acid esters of cellulose, (P.), B., 504.
 manufacture of artificial threads and webs of the same, (P.), B., 504.
 manufacture of artificial products from wood, (P.), B., 504.
 reserving of wool in dyeing with substantive dyes, (P.), B., 505.
 smoothing of paper, (P.), B., 505, 656.
 dyeing of [cellulose] acetate silk, (P.), B., 506.
 dyeing of esters and ethers of cellulose or of its transformation products, (P.), B., 506.
 separation of mixtures of sulphuric acid and nitric acid, (P.), B., 508.
 manufacture of chromium oxide, (P.), B., 509.
 manufacture of complex antimony salts, (P.), B., 509.
 continuous manufacture of carbon monoxide, (P.), B., 509.
 manufacture of compact metal articles from metal [iron] powders, (P.), B., 514.
 welding of metals and alloys, (P.), B., 514.
 improving [the resistance of] lead [to sulphuric acid], (P.), B., 514.
 manufacture of articles from alloys, (P.), B., 515.
 determination of intensities of [ultra-violet] radiation, (P.), B., 515.
 apparatus for performing electrometric volumetric analysis, (P.), B., 516.
 refining of wool fat, (P.), B., 518.
 refining sulphur olive oil, etc., [extracted oils], (P.), B., 519.
 manufacture of products resembling linoleum or rubber oil substitute, (P.), B., 519.
 manufacture of new products resembling wax, (P.), B., 519.
- I. G. Farbenind. A.-G., manufacture of hardened artificial masses, (P.), B., 520.
 manufacture of resilient [rubber] tyres and treads therefor, (P.), B., 521.
 insecticides, (P.), B., 525, 582, 842.
 manufacture of aqueous solutions of barbituric acids, (P.), B., 532.
 manufacture of alkylamine derivatives of organic compounds, (P.), B., 532.
 manufacture of organic mercury compounds, (P.), B., 532.
 manufacture of metal-organic complex salts, (P.), B., 533.
 pressure regulator for mechanically pumped liquids, (P.), B., 538.
 destructive hydrogenation of carbonaceous materials, especially for the production of motor fuels, (P.), B., 546.
 manufacture of condensation products containing nitrogen and sulphur [from acetylene, ammonia, and inorganic sulphides], (P.), B., 548.
 manufacture of sulphonic acids derived from non-aromatic carboxylic acids [wetting and emulsifying agents], (P.), B., 548.
 manufacture of arylcarboxyamido-*o*-thioglycolic acids [*o*-carb-amylylthioglycolic acids], (P.), B., 548.
 manufacture of 2-mercaptoarylenethiazole compounds [vulcanisation accelerators], (P.), B., 548.
 manufacture of *ar*-tetrahydronaphthols and their esters and ethers, (P.), B., 549.
 manufacture of halogen-naphthalene ketones, (P.), B., 549.
 manufacture of reduction products of indoxyl, naphthindoxyl, their homologues and acyl derivatives, (P.), B., 549.
 manufacture of derivatives of anthanthrone [vat dyes], (P.), B., 550.
 dyeing with the aid of diazo-compounds [ice colours], (P.), B., 554.
 protection of materials from the attack of moth and other pests; protection of wool, fur, hair, etc., against textile pests, (P.), B., 554.
 manufacture of alkali hydroxides, (P.), B., 556.
 purification of waste alkali liquors, (P.), B., 556.
 manufacture of alkaline-earth cyanides, (P.), B., 556.
 preservation of wood, (P.), B., 559, 1067.
 manufacture of coating preparations and artificial materials, (P.), B., 570.
 manufacture of therapeutical media [arsenicals], (P.), B., 586.
 manufacture of derivatives of organic arsenic antimony compounds, (P.), B., 586.
 manufacture of soluble organic antimony compounds, (P.), B., 586.
 manufacture of carbon-black from carbon monoxide, (P.), B., 597.
 production of refined hydrocarbon oils, etc., (P.), B., 599.
 oxidation of organic compounds of high mol. wt. [paraffin wax], (P.), B., 599.
 manufacture of condensation products [flotation agents containing nitrogen and sulphur] from acetylene, (P.), B., 601.
 manufacture of alcohols [from aldehydes or ketones], (P.), B., 602.
 carrying out condensation reactions with non-aromatic compounds, (P.), B., 602.
 manufacture of ethyl acetate, (P.), B., 602.
 esterification of polyvalent alcohols or their derivatives, (P.), B., 602.
 manufacture of urea [carbamide], (P.), B., 602.
 condensation of aromatic compounds with olefinic compounds, (P.), B., 602.
 manufacture of *o*-(aminocaroyl)benzoic acids and inner anhydrides thereof, (P.), B., 603.
 manufacture of esters of *O*-arylated or *O*-aralkylated bivalent [dihydric] alcohols [perfumes], (P.), B., 603.
 manufacture of heterocyclic bases of the aminoiminazoline [aminodihydroglyoxaline] series, (P.), B., 603.
 manufacture of [hydroxy]-carbazole derivatives, (P.), B., 603.
 manufacture of hydroxycarboxylic acids of carbazole, (P.), B., 603.
 manufacture of nitrohalogenoquinazolines [2- or 4-halogeno-*Bz*-nitroquinazolines], (P.), B., 603.
 manufacture of pure benzoic acid, (P.), B., 603, 808.
 manufacture of derivatives of 2:3-hydroxynaphthoic acid, (P.), B., 604.
 manufacture of aralkylbenzanthrones, (P.), B., 604.

I. G. Farbenind. A.-G., manufacture of anthranthrone derivatives [vat dyes], (P.), B., 605.
 manufacture of vat dyes [of the dibenzpyrenequinone series], (P.), B., 605.
 manufacture of vat dyes [of the isodibenzanthrone series] containing nitrogen, (P.), B., 605.
 manufacture of nitrogenous derivatives of pyranthrone [vat dyes], (P.), B., 605.
 manufacture of a vat dye [sulphonated indanthrone], (P.), B., 605.
 manufacture of vat dye preparations, (P.), B., 605.
 iodination of organic compounds capable of being vatted, (P.), B., 605.
 manufacture of organic iodo-halogen compounds, (P.), B., 605.
 manufacture of vat dyes [of the anthraquinone-acridone series], (P.), B., 605, 1060.
 manufacture of halogenated *allo-ms*-naphthodianthrone and condensation products thereof, (P.), B., 606.
 manufacture of diazonium fluorosulphonates, (P.), B., 606.
 manufacture of azo-dyes and complex metal compounds thereof, (P.), B., 606.
 manufacture of [direct] dis- and poly-azo-dyes, (P.), B., 606.
 manufacture of stable viscose solutions, (P.), B., 609.
 manufacture of [artificial] threads, foils, etc. [from polymerised diolefines], (P.), B., 609.
 process and apparatus for treating artificial threads, (P.), B., 610.
 making bands of artificial fibres, (P.), B., 610.
 dyeing and printing of cellulose acetate, (P.), B., 610.
 manufacture of potassium nitrate, (P.), B., 611.
 removal of alkali chlorides from crude potassium carbonate solutions, (P.), B., 612.
 manufacture of alkali fluorides, (P.), B., 612.
 manufacture of carbamates and conversion products of the same, (P.), B., 612.
 dehydration of (a) solid substances, (b) salts, (P.), B., 612.
 treatment of roads, paved surfaces, etc., (P.), B., 614.
 manufacture of shaped metal articles [pure sheet iron], (P.), B., 616.
 improving the fatigue strength of metal work pieces, (P.), B., 617.
 manufacture of products resembling wax, (P.), B., 621.
 [paint for] protection of iron surfaces against corrosion, (P.), B., 623.
 manufacture of coating preparations and solutions of their constituents, (P.), B., 624.
 manufacture of condensation products of urea [carbamide] or derivatives thereof and formaldehyde, (P.), B., 624.
 manufacture of phenol-formaldehyde condensation products, (P.), B., 624.
 manufacture of artificial masses [resins from polyhydric alcohols and dicarboxy-ethers or -thioethers, and their application], (P.), B., 624.
 manufacture of [resinous] condensation products of carbazole compounds and olefines, (P.), B., 625.
 manufacture of products having the properties of resins and waxes, (P.), B., 625.
 manufacture of ketones [perfumes], (P.), B., 640.
 manufacture of organic stibinic acids and salts thereof, (P.), B., 640.
 manufacture of solutions of cinchona alkaloids, (P.), B., 640.
 printing photographic gelatin layers, (P.), B., 641.
 supplying heat required for effecting chemical reactions, (P.), B., 644.
 dehydration [of solids], (P.), B., 644.
 extraction of hydrocarbons from gases, (P.), B., 650.
 manufacture of material capable of being marked by electrolytic decomposition, (P.), B., 655.
 manufacture of artificial threads by the dry-spinning method, (P.), B., 655.
 manufacture of artificial silk from cellulose esters or others, (P.), B., 656.
 purification of highly concentrated nitric acid, (P.), B., 660.
 production of chemically pure phosphoric acid, (P.), B., 660.
 synthetic manufacture of ammonia, (P.), B., 660.
 manufacture of sodium sulphate by the Hargreaves process, (P.), B., 661.
 manufacture of calcium cyanamide or products containing the same, (P.), B., 661.

I. G. Farbenind. A.-G., manufacture of aluminium fluoride, (P.), B., 661.
 purification of gases, (P.), B., 662.
 manufacture of liquid nitrogen dioxide, (P.), B., 662.
 cement powders and mortar powders, (P.), B., 665.
 preservation and disinfection of wood, (P.), B., 666.
 [electrodes for] electric accumulators, (P.), B., 673.
 manufacture of active masses for [alkaline] electric accumulators, (P.), B., 673.
 production of soaps possessing intensive detergent power, (P.), B., 675.
 deacidification and bleaching of oils and fats, (P.), B., 675.
 separation of waxes into their acids and mixtures of their alcohols and hydrocarbons, (P.), B., 675.
 manufacture of resinous products, (P.), B., 676.
 manufacture of products of the nature of resins, waxes, balsams, etc., (P.), B., 677.
 manufacture of artificial [plastic] masses, (P.), B., 677.
 manufacture of glues from yeast which are stable for storing, (P.), B., 679.
 apparatus for the clarification of liquids and separation of finely-powdered solid substances [by flotation], (P.), B., 694.
 manufacture of finely-divided active carbon, (P.), B., 700.
 manufacture of hydrocarbons of low b. p. from those of higher b. p., (P.), B., 702.
 manufacture of low-boiling hydrocarbon products, (P.), B., 702.
 manufacture of hydrocarbons and oxygen derivatives of hydrocarbons, in particular those of low b. p., (P.), B., 702.
 manufacture of 1:3-[γ -]butyleneglycol, (P.), B., 705.
 manufacture of aliphatic or cyclic primary amines, (P.), B., 705.
 manufacture of esters of polymerised carbohydrates, (P.), B., 705.
 manufacture of wetting, cleansing, dispersing agents, etc., (P.), B., 705.
 manufacture of aromatic amines from mixtures thereof, (P.), B., 705.
 manufacture of hydroxysulphamic acids and salts thereof, (P.), B., 706.
 production of nitrosodiazot-solutions, (P.), B., 706.
 manufacture of products of the anthracene series [intermediates and vat dyes], (P.), B., 706.
 manufacture of derivatives of the anthracene series, (P.), B., 706.
 preparations useful for production of dyes, (P.), B., 706.
 manufacture of vat dyes of the indigo series, (P.), B., 707.
 dyeing of esters or ethers of cellulose or of its transformation products, (P.), B., 709.
 manufacture of decomposition products from iron sulphates, (P.), B., 712.
 immunising agents for wood, grain, etc., (P.), B., 715.
 moulds for the manufacture of castings from metals or alloys, (P.), B., 719.
 casting of light metals, more particularly magnesium and its alloys, in sand moulds, (P.), B., 721.
 manufacture of water-soluble products from commercial fatty acids obtained from raw wool fat, (P.), B., 725.
 manufacture of dope material for producing non-transparent coatings, (P.), B., 726.
 manufactures of lacquers, coating materials, insulating and impregnating materials, etc., (P.), B., 727.
 manufacture of foils, etc., [from synthetic rubber-like substances], (P.), B., 729.
 colouring rubber and similar materials, (P.), B., 729.
 incorporation of lampblack into rubber, etc., (P.), B., 730.
 manufacture of rubber pastes, (P.), B., 730.
 production of a bate or drench for skins, (P.), B., 733.
 bating or drenching limed, unhaird hides or skins, (P.), B., 733.
 manufacture of glutinous products, (P.), B., 733.
 manufacture of salt mixtures suitable for use as fertilisers containing carbamates or conversion products of carbamates, (P.), B., 736.
 manufacture of fertiliser salts, (P.), B., 736.
 manufacture of fertiliser salts containing potash and nitrogen or potash, nitrogen, and phosphorus, (P.), B., 736.
 adhesive compositions for catching insects, (P.), B., 736.
 manufacture of double compounds of the acridine series, (P.), B., 741.
 composition rods igniting by friction [match substitutes], (P.), B., 742.

- I. G. Farbenind. A.-G., process and apparatus for manufacture of shaped objects from fusible materials, (P.), B., 747.
 washing of gas liquors, (P.), B., 752.
 recovery of refined products from carbonaceous materials such as coal, tars, mineral oils, etc., (P.), B., 752.
 manufacture of phosphoric acid esters, (P.), B., 754.
 manufacture of carbazole derivatives, (P.), B., 754.
 manufacture of adhesive and binding agents, (P.), B., 754.
 manufacture of vat dyes of the benzanthrone series, (P.), B., 755.
 manufacture of vat dyes [of the dibenzanthrone series], (P.), B., 755.
 manufacture of halogen derivatives [vat dyes] of the dibenzanthrone series, (P.), B., 756.
 manufacture of vat dyes and intermediates of the anthanthrone series, (P.), B., 756.
 manufacture of vat dyes of the 3:4:8:9[1:2:6:7]-dibenzpyrene-[3:8-] quinone series, (P.), B., 756.
 manufacture of vat dyes containing sulphur, (P.), B., 756.
 manufacture of monoazo-dyes [ice colours and pigments], (P.), B., 756.
 manufacture of azine dyes, (P.), B., 756.
 manufacture of monoazo-dyes [for wool], (P.), B., 756, 897, 1019.
 manufacture of artificial threads, bands, films, etc., (P.), B., 760.
 spinning of viscose, (P.), B., 760.
 manufacture of artificial fibres, (P.), B., 760.
 precipitating baths for making threads, etc., from viscose, (P.), B., 760.
 dyeing of piece goods and yarns with vat dyes, (P.), B., 762.
 dyeing of viscose, (P.), B., 762.
 production of coloured articles made from cellulose esters, (P.), B., 762.
 production of prints on cloth or similar material, (P.), B., 762.
 treatment of wool, fur, or similar materials with organic liquids, (P.), B., 762.
 obtaining effects on textile materials of vegetable, animal, or other origin, (P.), B., 763.
 cleaning of wool material stained with tar- and pitch-tips, (P.), B., 763.
 manufacture of alkali hypochlorites from [artificial-silk] waste alkali lyes, (P.), B., 765.
 manufacture of alkaline-earth and alkali formates and chromium-green, (P.), B., 765.
 materials for marking animals, (P.), B., 779.
 manufacture of cellulose ether-oxy lacquers and application of the products obtained, (P.), B., 780.
 manufacture of artificial masses, (P.), B., 780, 998, 1121.
 manufacture of rubber or of polymerisation products of diolefines, which are plastic and elastic, (P.), B., 781.
 manufacture of sugars and polyhydric alcohols, (P.), B., 786.
 manufacture of sugar solutions suitable for fermentation purposes, (P.), B., 786.
 manufacture of silver halide emulsions, (P.), B., 793.
 apparatus for carrying out endothermic catalytic gas reactions, (P.), B., 798.
 substantially suppressing phosgene-formation when extinguishing fires with carbon tetrachloride, (P.), B., 799.
 recovery of refined products from carbonaceous materials such as coal, tars, mineral oils, etc., (P.), B., 805.
 manufacture of butadiene, (P.), B., 807.
 production of acetylene dichloride of low b. p. from acetylene and chlorine, (P.), B., 807.
 manufacture of soluble wood ethers, (P.), B., 807.
 manufacture of carboxylic acid halides, (P.), B., 808.
 manufacture of hydrogenated amines, (P.), B., 808.
 manufacture of amino-alkyl compounds, (P.), B., 808.
 manufacture of amino-substituted tertiary alcohols, (P.), B., 808.
 manufacture of amino-alcohols, (P.), B., 808.
 manufacture of naphthylaminocarboxylic acid derivatives [naphthylaminosalicylic acids], (P.), B., 808.
 manufacture of *o*-hydroxycarboxylic acids of fluorene, (P.), B., 808.
 manufacture of *o*-aminocarboxylic esters of the anthraquinone series, (P.), B., 809.
 manufacture of β -anthraquinonecarboxylic acids and esters thereof, (P.), B., 809.
 manufacture of mercaptobenzthiazoles, (P.), B., 809.
- I. G. Farbenind. A.-G., manufacture of wetting, cleansing, emulsifying, and dispersing agents and preparations containing the same, (P.), B., 809.
 manufacture of anthraquinone derivatives [wool dyes], (P.), B., 810.
 manufacture of derivatives of pyranthrone, (P.), B., 810.
 manufacture of nitrogen-containing derivatives of the benzanthrone series, (P.), B., 810.
 manufacture of yellow monoazo-dyes [for chrome leather], material dyed therewith, and an intermediate product thereof, (P.), B., 811.
 manufacture of azo-dyes containing chromium, (P.), B., 811.
 manufacture of vat dyes [from naphthalene-1:4:5:8-tetracarboxylic diahydride and *o*-diamines], (P.), B., 811.
 manufacture of viscose products, (P.), B., 814.
 manufacture of soluble cellulose esters and ether-esters, (P.), B., 814.
 manufacture of readily soluble acylcelluloses yielding clear solutions, (P.), B., 814.
 manufacture of finely-comminuted masses from cellulose derivatives, (P.), B., 814.
 production of coloured reserve effects on textile materials, (P.), B., 815.
 printing with aniline-black, etc., (P.), B., 815.
 printing with vat dyes, (P.), B., 815.
 ornamentation of textile fabrics, etc., (P.), B., 815.
 preheating of ammonia gas in the execution of reactions therewith at elevated temperatures, (P.), B., 817.
 manufacture of carbamates and conversion products thereof, (P.), B., 817.
 electrolysis of fused halogen salts, (P.), B., 817.
 manufacture of phosphoric acid esters, (P.), B., 817.
 separating magnesium chloride from its aqueous solutions and obtaining anhydrous magnesium chloride, (P.), B., 818.
 manufacture of safety glass, (P.), B., 820.
 manufacture of [porous] electrodes for accumulators, (P.), B., 824.
 [grids, frames, etc., of] electric accumulators, (P.), B., 824, 1162.
 treatment of mica, or artificial mica, or substances resembling mica, (P.), B., 824.
 protection of [iodised starch] pictures [for wireless-transmission purposes] from the effect of light, (P.), B., 824.
 isolation of fatty acids obtained by the oxidation of waxes, (P.), B., 826.
 manufacture of oils which are soluble in mineral oils from castor oil, (P.), B., 826.
 manufacture of [aluminium] lakes or pigments, (P.), B., 827.
 manufacture of stoving lacquers, (P.), B., 827.
 manufacture of lacquers, filling or priming compositions, etc., (P.), B., 828.
 preparation of coatings, (P.), B., 828.
 organic liquid coating compositions [pyroxylin varnishes], (P.), B., 828.
 manufacture of rubber-like products, (P.), B., 830.
 polymerisation of hydrocarbons of the butadiene series, (P.), B., 830.
 improving synthetic rubber-like substances, (P.), B., 830.
 manufacture of resistant porous sheets, (P.), B., 830.
 manufacture of organic mercury compounds, (P.), B., 834.
 preparation of α -*p*-hydroxyphenyl- β -methylaminopropanol [β -methylamino- α -*p*-hydroxyphenylpropyl alcohol], (P.), B., 839.
 manufacture of therapeutical agents, (P.), B., 839.
 manufacture of highly active absorption carbon, (P.), B., 851.
 heat-treatment of granular carbonaceous material, (P.), B., 851.
 working-up of tars containing paraffin waxes, (P.), B., 853.
 destructive hydrogenation of carbonaceous materials, (P.), B., 853.
 production of non-knocking motor fuels, (P.), B., 854.
 manufacture of aliphatic carboxylic acids from aqueous solutions thereof, (P.), B., 855.
 manufacture of acetic anhydride, (P.), B., 855.
 manufacture of hydroxycarboxylic acids of naphthacarbazoles, (P.), B., 855.
 manufacture of [green] azo-dyes insoluble in water [ice and pigment colours], (P.), B., 856.
 manufacture of [green] sulphur dyes, (P.), B., 856.
 precipitating baths for making threads, etc., from viscose, (P.), B., 858.
 manufacture of ornamented paper, (P.), B., 859.

I. G. Farbenind. A.-G., manufacture of evenly dyed viscose fabrics, (P.), B., 859.
 improving dyeing properties of viscose silk, (P.), B., 859.
 printing white or coloured matt effects on esters of cellulose or its transformation products, (P.), B., 859.
 manufacture of concentrated titanil and titanil sulphate solutions, (P.), B., 862.
 electrolysis of molten substances, (P.), B., 869.
 manufacture of electrodes for secondary cells, in particular those with alkaline electrolytes, (P.), B., 869.
 manufacture of rubber derivatives, (P.), B., 873.
 manufacture of rubber-like masses, (P.), B., 873.
 apparatus for low-temperature distillation, drying, etc., (P.), B., 891.
 destructive hydrogenation of carbonaceous materials, (P.), B., 892.
 manufacture of acetylene and hydrogen from hydrocarbons or gas mixtures containing same, (P.), B., 893.
 manufacture of liquid hydrocarbons and hydrocarbon derivatives, (P.), B., 893.
 manufacture of arylacetic acids and substitution products thereof, (P.), B., 895.
 manufacture of sulphonation products of unsaturated hydroxy-fatty acids, (P.), B., 895.
 manufacture of phenolic compounds, (P.), B., 895.
 manufacture of condensation products from aromatic aldehydes and phenols [mothproofing agents], (P.), B., 896.
 manufacture of 2-aminonaphthalene-3-carboxylic acid [2:3-aminonaphthoic acid], (P.), B., 896.
 manufacture of oxygenated organic compounds; [oxidation of aromatic side-chains, naphthalene, etc.], (P.), B., 896.
 manufacture of diaminoanthraquinones, (P.), B., 896.
 manufacture of the 6-sulphonic acids of quinizarin and its homologues, (P.), B., 896.
 manufacture of acid wool dyes [from nitronaphthalimides], (P.), B., 896.
 manufacture of dyes of the anthraquinone series, (P.), B., 896.
 manufacture of anthraquinone derivatives [carbazoles of the anthraquinone series], (P.), B., 897.
 manufacture of compounds of the pyrazolanthrone series and vat dyes therefrom, (P.), B., 897.
 manufacture of pink to red [thioindigoid] vat dyes, (P.), B., 897.
 manufacture of water-soluble leuco-esters of vat dyes, (P.), B., 897.
 manufacture of vat dyes [from halogenated dibenzpyrene-quinones], (P.), B., 897.
 manufacture of vat dyes of the anthanthrone series, (P.), B., 897, 942.
 spools for textile industries, (P.), B., 899.
 manufacture of fibres, ribbons, films, etc., from viscose, (P.), B., 899.
 manufacture of cellulose ether esters, (P.), B., 900.
 manufacture of shaped objects from cellulose derivatives, (P.), B., 900.
 vat dyeing, (P.), B., 901.
 manufacture of evenly-dyed viscose fabrics, (P.), B., 901.
 manufacture of azo-dyes on the fibre [stable diazo-preparations], (P.), B., 902.
 discharge printing, (P.), B., 902.
 discharge printing on wool, (P.), B., 902.
 production of azo-dyes on the fibre [ice-colours], (P.), B., 902, 944, 1019.
 [catalyst for] oxidation of ammonia, (P.), B., 904.
 working-up of natural and industrial salt mixtures, (P.), B., 904.
 production of molybdates of alkaline-earth metals and of magnesium, (P.), B., 905.
 manufacture of solid titanil and titanil sulphates, (P.), B., 905.
 coated metallic articles particularly in electrical apparatus and machinery, (P.), B., 915.
 manufacture of porous metal articles [iron and nickel accumulator plates], (P.), B., 915.
 keeping cut flowers, etc., fresh, (P.), B., 924.
 cultivation of micro-organisms, (P.), B., 927.
 manufacture of substituted ureas and thioureas, (P.), B., 928.
 manufacture of salts of higher homologues of polyhydroxy-benzenes, (P.), B., 928.
 manufacture of 3:3'-dichloro-5:5'-diacetamido-4:4'-dihydroxy-arsenobenzene, (P.), B., 928.
 tightening and bearing surfaces of apparatus or machines [containing dust], (P.), B., 933.

I. G. Farbenind. A.-G., working-up of distillable carbonaceous liquids containing substances of high mol. wt., (P.), B., 938.
 working-up of the oil-bearing residues from destructive hydrogenation or pressure-extraction processes, (P.), B., 938.
 polymerisation [of diolefines] and apparatus therefor, (P.), B., 939.
 manufacture of aldehydes from α -oxides of hydrocarbons [olefine oxides], (P.), B., 939.
 manufacture of aldehydes from alcohols, (P.), B., 939.
 manufacture of β -naphthylaminoaryloxy-fatty acids, (P.), B., 940.
 manufacture of γ -alkyl- and γ -aryl-quinolines and their homologues, (P.), B., 940.
 manufacture of water-soluble preparations of phenolic condensation products useful for tanning and other purposes, (P.), B., 941.
 manufacture of aromatic amino-sulphochlorides [arylamino-sulphonyl chlorides], (P.), B., 941.
 manufacture of 4:6-dihydroxy-2-arylpyrimidines, (P.), B., 941.
 manufacture of naphthalene-2:3-dicarboxylic acid, (P.), B., 941.
 manufacture of acid wool dyes of the anthraquinone series, (P.), B., 942.
 manufacture of blue vat dyes, (P.), B., 942.
 manufacture of complex fluoboro-organic acids and salts thereof, (P.), B., 946.
 manufacture of metal carbamates, (P.), B., 946.
 preventing deposition of carbon in and upon ceramic materials which come into contact with [furnace] gases at high temperatures, (P.), B., 948.
 [positive electrodes for alkaline] electric accumulators, (P.), B., 954.
 manufacture of insulated cables, (P.), B., 955.
 manufacture of lacquers, priming compositions, etc., (P.), B., 958.
 manufacture of synthetic resins, (P.), B., 958.
 accelerating the vulcanisation of natural and artificial varieties of rubber, (P.), B., 959.
 manufacture of tanning agents, (P.), B., 960.
 manufacture of tanning agents [chlorinated products of degraded lignite, etc.], (P.), B., 960.
 manufacture of salts of antimonic acid and of organo-stibinic acids, (P.), B., 967.
 packing for photographic plates, (P.), B., 967.
 heating of decomposable liquids, (P.), B., 970.
 apparatus for separation of gas mixtures, (P.), B., 972.
 separation of gaseous mixtures by diffusion, (P.), B., 972.
 manufacture of acetaldehyde, (P.), B., 980.
 manufacture of nitrogenous condensation products from acetylene and ammonia, (P.), B., 980.
 manufacture of condensation products containing nitrogen [from acetylene, etc., and ammonia or amines], (P.), B., 980.
 manufacture of [sec.- and tert.-aliphatic] amines, (P.), B., 980.
 manufacture of vinyl ethers, (P.), B., 981.
 apparatus for manufacture of esters, (P.), B., 981.
 manufacture of diazonium salts of complex metallic fluorine acids, (P.), B., 981.
 manufacture of colloidal solutions and pastes, (P.), B., 981.
 manufacture of esters and amides of 2:3-aminonaphthoic acid, (P.), B., 982.
 manufacture of 5:8-dihalogeno-1:2-benzanthraquinones, (P.), B., 982.
 manufacture of compounds from vat dyes, (P.), B., 982.
 manufacture of vat dyes of the dibenzpyrenequinone series, (P.), B., 982.
 production of diazo-solutions, (P.), B., 983.
 manufacture of water-soluble derivatives of aromatic diazo-compounds, (P.), B., 983.
 manufacture of dyes of the triphenylmethane series, (P.), B., 983.
 development of ester salts of leuco-compounds of vat dyes, (P.), B., 986.
 manufacture of improved artificial silk, in particular cellulose acetate silk, (P.), B., 986.
 steaming of fabrics printed with vat dyes, (P.), B., 987.
 production of non-caustic calcium cyanamide which is free from dust, (P.), B., 988.
 preparation of anhydrous magnesium chloride practically free from oxide, (P.), B., 988.
 production of [thermoplastic] conversion products of rubber, (P.), B., 998.

- I. G. Farbenind. A.-G., acceleration of vulcanisation, (P.), B., 998.
 inhibiting or reducing the perishing of artificial and natural varieties of rubber, (P.), B., 999.
 stable and sterilised solutions of salts of dialkylaminoaryl-phosphinous acids, (P.), B., 1004.
 recovery of the products of destructive hydrogenation and cracking processes, (P.), B., 1012.
 manufacture of acetylene from hydrocarbons or mixtures containing them in the electric arc, (P.), B., 1012.
 manufacture of liquid fuels, (P.), B., 1013, 1141.
 manufacture of hydrocarbons which are saturated with hydrogen, (P.), B., 1013.
 manufacture of chlorine and bromine derivatives of compounds of the acetylene series, (P.), B., 1015.
 manufacture of polymerisation products of diolefines, (P.), B., 1015.
 manufacture of soluble polymerisation products from diolefines, (P.), B., 1015.
 manufacture of stable polymerisation products from vinyl esters, (P.), B., 1015.
 manufacture of acrylyl chloride, (P.), B., 1016.
 manufacture of trisubstituted thioureas [thiocarbamides], (P.), B., 1016.
 manufacture of organic compounds by dehydrogenation, (P.), B., 1016.
 oxidation of benzene hydrocarbons, (P.), B., 1016.
 manufacture of polymerisation products of styrene, (P.), B., 1016.
 manufacture of aldehydes, (P.), B., 1016.
 manufacture of arylaminophenolcarboxylic acids, (P.), B., 1016.
 manufacture of 2-chlorobenzothiazoles, (P.), B., 1016.
 manufacture of condensation products from aldehydes and phenols [mothproofing compounds], (P.), B., 1017.
 manufacture of sulphonated condensation products [from phenols and halogenated benzyl halides], (P.), B., 1017.
 manufacture of condensation products from aliphatic aldehydes and bases of the naphthalene series [anti-agers], (P.), B., 1017.
 manufacture of derivatives of naphthalene [acylnaphthalenes and 4-substituted α -naphthoic acids], (P.), B., 1017.
 manufacture of hydroxy-1':8'-naphthoylenenaphthiminazoles and sulphonic acids thereof, (P.), B., 1017.
 manufacture of derivatives of the naphthoylenediaryliminazole series [from naphthalenetetracarboxylic acid and *o*-diamines], (P.), B., 1017.
 manufacture of derivatives of quinolino, (P.), B., 1018.
 manufacture of derivatives of benzanthrone, (P.), B., 1018.
 manufacture of [thioindigo] vat dyes, (P.), B., 1018.
 manufacture of dianthraquinonylamines of the anthraquinone-acridone series [vat dyes], (P.), B., 1018.
 manufacture of condensation products of the anthraquinone-acridone series, (P.), B., 1018.
 manufacture of green vat dyes of the [di]benzanthrone series, (P.), B., 1019.
 manufacture of substantive *o*-carboxyazo-dyes containing copper, (P.), B., 1019.
 manufacture of silk from acylcellulose, (P.), B., 1022.
 dyeing with the reserving of wool; manufacture of reserving agents for wool, (P.), B., 1024.
 production of white and coloured discharges [on ice colours from 2:3-hydroxynaphthoic arylamides], (P.), B., 1025.
 improvement of textiles, etc., by rendering them resistant to attack by textile pests [moths], bacteria, and mould, (P.), B., 1025.
 manufacture of vulcanised fibres, etc., (P.), B., 1025.
 recovery of copper [hydroxide] from dilute ammoniacal solutions, (P.), B., 1028.
 recovery of copper from spent copper lyes, (P.), B., 1028.
 manufacture of [finely-divided] bismuth hydroxide, (P.), B., 1028.
 [electrolytic] manufacture of [per]-compounds containing oxygen, (P.), B., 1029.
 welding agent for magnesium alloys, (P.), B., 1034.
 manufacture of aqueous coating compositions, (P.), B., 1038.
 dyeing or colouring of varnishes, waxes, fats, oils, and higher fatty acids, (P.), B., 1038.
 manufacture of coloured polyvinyl ester varnishes, (P.), B., 1039.
 manufacture of condensation products from a urea and formaldehyde, (P.), B., 1039.
 manufacture of elastic products, (P.), B., 1040.
- I. G. Farbenind. A.-G., manufacture of (A) a compound of urea and calcium nitrate, (B) solid urea or fertilisers containing urea, (P.), B., 1042.
 manufacture of aralkyl esters of the *Hydnocarpus* fatty acids, (P.), B., 1046.
 preparation of active substances from hypophysis glands, (P.), B., 1046.
 carrying out reactions with gases, vapours, or liquids, in which hydrogen, oxygen, or sulphur is present in the free or combined form, (P.), B., 1050.
 manufacture of liquids suitable for hydraulic machines or apparatus, (P.), B., 1051.
 manufacture of viscous oils and hydrocarbon products of low b. p., (P.), B., 1056.
 production of hydrocarbons of high b. p. range [suitable for lubricants] from coal, shale, and other bituminous substances, (P.), B., 1057.
 manufacture of carbohydrate compounds [soluble hydroxy-alkyl ethers], (P.), B., 1058.
 separation of mixtures of secondary and tertiary amines, (P.), B., 1058.
 manufacture of nitrogen-containing derivatives of the benz-anthrone series, (P.), B., 1059.
 manufacture of phenanthridone, homologues, derivatives, and substitution products thereof, (P.), B., 1059.
 manufacture of emulsions, (P.), B., 1059.
 manufacture of vat dyes [from isatin and hydroxynaphthacarbazoles], (P.), B., 1060.
 manufacture of [indigoid] vat dyes, (P.), B., 1060, 1144.
 manufacture of [insoluble] azo-dyes dyeing black tints [pigments and ice colours], (P.), B., 1061.
 production of coloured resists under aniline black, (P.), B., 1063.
 printing on wool [with leuco-vat dye esters], (P.), B., 1063.
 manufacture of artificial silk [of matte lustre] from viscose, (P.), B., 1063.
 production of chemically pure phosphoric acid, (P.), B., 1064.
 removal of carbonyl-forming metals or carbides thereof from soot, (P.), B., 1077.
 removal of slime from oils and fats, (P.), B., 1079.
 production of lacquers and other coatings for absorptive material, (P.), B., 1079.
 manufacture of basic bismuth salts or organic arsenic acids, (P.), B., 1091.
 photographic reducers, (P.), B., 1092.
 recovery of organic acids from oxidation products of solid paraffin and similar waxes, (P.), B., 1102.
 manufacture of [nitrogenous] products from gaseous acetylene hydrocarbons or aldehydes [and ammonia, etc.], (P.), B., 1103.
 manufacture of cyclic hydrocarbons from gaseous acetylene hydrocarbons or aldehydes, (P.), B., 1103.
 manufacture of alcohols from gaseous acetylene hydrocarbons, (P.), B., 1103.
 manufacture of condensation products from diolefines and [aromatic] hydrocarbons, (P.), B., 1103.
 manufacture of polymerisation products from diolefines, (P.), B., 1103.
 manufacture of anthraquinonecarboxylic acids, (P.), B., 1103.
 improvement of high-percentage magnesium alloys, (P.), B., 1115.
 [ink for lithographic] printing, (P.), B., 1120.
 manufacture of solutions applicable as lacquers, (P.), B., 1120.
 manufacture of resistant masses, lacquer coatings, films, etc., (P.), B., 1121.
 manufacture of mixed artificial rubbers, (P.), B., 1122.
 manufacture of [plastic] tyres for vehicles, (P.), B., 1122.
 extracting and separating the active substances from the posterior lobe of the hypophysis, (P.), B., 1131.
 manufacture of heat-insulating masses, (P.), B., 1134.
 apparatus for low-temperature carbonisation of bituminous and oil-bearing materials, (P.), B., 1138.
 purification of sulphur-bearing gases and recovery of sulphates and sulphur, (P.), B., 1140.
 manufacture of emulsions with the aid of humic acid, (P.), B., 1140.
 manufacture of primary and secondary amines, (P.), B., 1142.
 manufacture of urea [carbamide] or products containing it, (P.), B., 1142.
 manufacture of basic products from imino-ethers of higher fatty acids, (P.), B., 1143.

- I. G. Farbenind. A.-G., manufacture of 6-halogeno-2:4-di(nitrophenyl)-1:3:5-triazines, (P.), B., 1143.
 manufacture of naphthalene derivatives, (P.), B., 1143.
 manufacture of isatoic anhydride and derivatives thereof, (P.), B., 1143.
 manufacture of compounds of the anthraquinone series, (P.), B., 1144.
 manufacture of vat dyes [of the alizarin-indigo series], (P.), B., 1144.
 manufacture of stable reduction compounds of [indigoid] vat dyes, (P.), B., 1144.
 manufacture of azo-dyes [acid dyes and lakes], (P.), B., 1144.
 manufacture of soluble compositions for dyeing and printing, (P.), B., 1144.
 manufacture of esters of polysaccharide ethers and of plastic or other compositions comprising the same, (P.), B., 1146.
 production of coloured discharges, (P.), B., 1147.
 rendering animal fibre materials immune from attack by moth, etc., (P.), B., 1148.
 impregnation of textiles and other porous materials, (P.), B., 1148.
 manufacture of diammonium phosphate, (P.), B., 1150.
 manufacture of mixtures of nitrogen and hydrogen, (P.), B., 1151.
 treatment [fireproofing] of combustible substances [e.g., wood, fabrics], (P.), B., 1154.
 production of finely-divided metals from metal carbonyls, (P.), B., 1159.
 increasing the electrical conductivity of atmospheres surrounding electric arcs used for heating or welding purposes, (P.), B., 1160.
 manufacture of [diaphragms for] electrolytic cells, (P.), B., 1162.
 colouring rubber oil substitute, (P.), B., 1163.
 manufacture of [weather-resistant] paints, (P.), B., 1164.
 manufacture of fertiliser salts capable of being stored, (P.), B., 1166.
 manufacture of adhesives, (P.), B., 1167.
 preparation of remedies for cardiac diseases, (P.), B., 1169.
 [die-cast cellulosic] photographic film spools, (P.), B., 1170.
- I. G. Farbenind. A.-G., Ackermann, F., and Schubert, E., production of ammonium sulphate, (P.), B., 142.
 I. G. Farbenind. A.-G., Balz, O., and Reuscher, F., catalytic oxidation of ammonia, (P.), B., 557*.
 I. G. Farbenind. A.-G., Beck, C., and Diekmann, H., liquefaction of oxides of nitrogen, (P.), B., 189*.
 I. G. Farbenind. A.-G., Becker, F., Heimann, H., and Bayerl, A., esterification of cellulose, (P.), B., 1147*.
 I. G. Farbenind. A.-G., Benda, L., and Sievers, O., manufacture of 4-hydroxy-3-acetaminoaryl-l-aronic acid, (P.), B., 167*.
 I. G. Farbenind. A.-G., and Bernhard, E., decolorisation of liver oils with retention of vitamins and improvement of taste, (P.), B., 203.
 I. G. Farbenind. A.-G., and Boehringer & Söhne, G.m.b.H., C. F., manufacture of therapeutic agents [against carcinoma, spirochaetes, and trypanosomes], (P.), B., 1046.
 I. G. Farbenind. A.-G., Dachlauer, K., and Thomsen, C., tanning of animal hides, (P.), B., 434.
 I. G. Farbenind. A.-G., Daimler, K., and Balle, G., manufacture of *n*-butylated naphthalene- β -sulphonic acids [wetting and emulsifying agents], (P.), B., 361.
 manufacture of sulphonic derivatives of hydrogenated aromatic hydrocarbons [wetting agents, etc.], (P.), B., 548.
 manufacture of substituted arylsulphonic acids, (P.), B., 604*.
 preparation of nuclear-substituted arylsulphonic acids, (P.), B., 604*.
 I. G. Farbenind. A.-G., and Dehnel, E., [production of] stable ammonium bicarbonate, (P.), B., 765*.
 I. G. Farbenind. A.-G., Diels, O., and Alder, K., manufacture of compounds having hydrogenated ring-systems, (P.), B., 549.
 I. G. Farbenind. A.-G., and Dörr, E., isolation of benzyl cellulose, (P.), B., 415*, 901*.
 I. G. Farbenind. A.-G., and Durand & Huguenin Société Anonyme, production of fast-coloured discharge effects, (P.), B., 320.
 I. G. Farbenind. A.-G., and Eisenhut, O., products [acetylene] from coal, tars, mineral oils, etc., (P.), B., 547*.
 I. G. Farbenind. A.-G., and Engelhardt, A., separation of organic gases and vapours [from air], (P.), B., 224.
 extraction of fat from raw wool, (P.), B., 985*.
 I. G. Farbenind. A.-G., Ernst, O., and Lange, H., concentrating aqueous chloroacetaldehyde solutions, (P.), B., 982*.
- I. G. Farbenind. A.-G., and Fischesser, A., discharge effects on cellulose acetate silk, (P.), B., 762.
 I. G. Farbenind. A.-G., Frankenburger, W., and Steigerwald, C., artificial compositions, especially those resembling rubber, (P.), B., 573*.
 manufacture of hydrogen peroxide, (P.), B., 613.
 I. G. Farbenind. A.-G., and Franz, E., production of coloured patterns on textiles, paper, or plastic masses, (P.), B., 416.
 I. G. Farbenind. A.-G., and Gaus, W., motor fuel, (P.), B., 1014*.
 I. G. Farbenind. A.-G., Gmélín, P., and Eisenhut, O., treatment of hydrocarbons with electric arcs, (P.), B., 314*.
 I. G. Farbenind. A.-G., Griessbach, R., Röhre, K., Goldberg, R., and Schmitt, K. O., recovery of alkali phosphate and nitrate separately from solutions containing both; [decomposition of phosphate rock], (P.), B., 459.
 I. G. Farbenind. A.-G., Griessbach, R., and Schliephake, O., production of potassium ammonium sulphate [mixed fertiliser], (P.), B., 582*.
 I. G. Farbenind. A.-G., Griessbach, R., Schliephake, O., and Heusler, O., production of calcium nitrate, alumina, and phosphorus, (P.), B., 765*.
 I. G. Farbenind. A.-G., Günther, F., and Hetzer, J., manufacture of alkylated aromatic sulphonic acids, (P.), B., 51*.
 I. G. Farbenind. A.-G., Hartmann, Erich, Hardtmann, M., and Kümmel, P., protection of wool, fur, rugs, etc., against the attack of moths, (P.), B., 237, 763*.
 I. G. Farbenind. A.-G., Heimann, H., Seefried, H., Petersen, J., and Bayerl, A., opening-up materials containing cellulose, (P.), B., 53*.
 I. G. Farbenind. A.-G., Henglein, F. A., and Schleicher, F., manufacture of acetic anhydride from acetic acid, (P.), B., 9*.
 I. G. Farbenind. A.-G., Heuck, C., and Esselmann, P., reducing the swelling capacity of hydrated cellulose, (P.), B., 54*.
 I. G. Farbenind. A.-G., Hoffa, E., and Thoma, E., manufacture of azo-dyes insoluble in water [ice colours and pigments], (P.), B., 811.
 I. G. Farbenind. A.-G., and Hofmann, F., oxidising paraffins, waxes, etc., (P.), B., 1057*.
 I. G. Farbenind. A.-G., and Homolka, B., desensitisation of silver bromide emulsions and plates or films covered with such emulsions, (P.), B., 742*.
 I. G. Farbenind. A.-G., Hubert, E., Lock, L., and Leuchs, O., preparation of bodies from acylcelluloses, (P.), B., 761*.
 I. G. Farbenind. A.-G., and Johnson, J. Y., manufacture of vat dyes [dibenzpyrenequinones] containing halogens, (P.), B., 1019.
 I. G. Farbenind. A.-G., Just, F., Dachlauer, K., and Thiel, E., felting of textile materials, (P.), B., 184.
 I. G. Farbenind. A.-G., Just, F., Daimler, K., and Balle, G., dyeing of animal fibres with vat dyes, (P.), B., 554.
 I. G. Farbenind. A.-G., and Kaminski, S., high-gloss drying apparatus for papers, (P.), B., 944.
 I. G. Farbenind. A.-G., Kaufmann, H. P., and Schubert, M., process for introducing sulphocyanic groups into organic compounds, (P.), B., 755*.
 I. G. Farbenind. A.-G., and Knorr, A., solution of cellulose derivatives [lacquer], (P.), B., 1164*.
 I. G. Farbenind. A.-G., Kränzlein, G., Hartmann, C., and Hardt, A., manufacture of organic salts of dyes [lakes, etc.], (P.), B., 10.
 I. G. Farbenind. A.-G., Kränzlein, G., Müller, R. K., Brunträger, F., and Janz, H., preparation of homogeneous alloys of lead [with sodium], (P.), B., 954*.
 I. G. Farbenind. A.-G., and Kropp, W., manufacture of condensation products of β -substituted acroleins with aromatic bases [vulcanisation accelerators], (P.), B., 361.
 I. G. Farbenind. A.-G., and Laux, J., production of iron oxide pigments, (P.), B., 998*.
 I. G. Farbenind. A.-G., and Lenz, W., preparation of dihydroxyacetone, (P.), B., 550*.
 I. G. Farbenind. A.-G., and Leuchs, O., conversion of difficultly soluble or insoluble carbohydrate ethers into a soluble state, (P.), B., 761*.
 caustic soda solution of cellulose, (P.), B., 1105.
 etherification of carbohydrates, (P.), B., 1127.
 I. G. Farbenind. A.-G., and Linder, F., [manufacture of] salts of alkaline-earth metals, (P.), B., 419*.
 manufacture of alkaline-earth chlorides from the corresponding sulphates, (P.), B., 612.
 I. G. Farbenind. A.-G., Linder, F., and Link, F., production of hydrocyanic acid, (P.), B., 419*.

- I. G. Farbenind. A.-G., Lommel, W., Münzel, H., Stötter, H., and Wenk, B., preparation of moth-proof articles, (P.), B., 11*.
- I. G. Farbenind. A.-G., Luther, M., and Beller, H., production of lactic acid and its derivatives, (P.), B., 755*.
- I. G. Farbenind. A.-G., Luther, M., and Pieroh, K., purifying oils, (P.), B., 134.
- I. G. Farbenind. A.-G., and Marburg, E. C., production of alumina, (P.), B., 1110*.
- I. G. Farbenind. A.-G., Marx, K., and Brodersen, K., preparation of stable water-soluble insecticides, etc., (P.), B., 298.
- I. G. Farbenind. A.-G., Mayer, F., Billig, K., Horst, K., and Schirmacher, K., manufacture of cyclic ketones of the aromatic series [indanones], (P.), B., 550*.
- I. G. Farbenind. A.-G., and Meidert, F., conversion of cobalt and nickel carbonates into hydrated sesquioxides, (P.), B., 712.
- I. G. Farbenind. A.-G., and Meiser, W., manufacture of [crystalline] urea, (P.), B., 755*.
- I. G. Farbenind. A.-G., Meiser, W., Schubardt, W., and Kramer, O., [manufacture of] pure iron of small grain size, (P.), B., 20*.
- I. G. Farbenind. A.-G., and Metzger, R., dyeing of cellulose esters, (P.), B., 554.
- I. G. Farbenind. A.-G., Meyer, K. H., Müller, Julius, and Hoffmann, W., printing colours, (P.), B., 555*.
- I. G. Farbenind. A.-G., and Michel, R., manufacture of condensation products from olefines and hydrocarbons of the naphthalene series, (P.), B., 182*.
- I. G. Farbenind. A.-G., manufacture of ethylated naphthalenes, (P.), B., 182*.
- I. G. Farbenind. A.-G., manufacture of [olefine-polynuclear hydrocarbon] condensation products, (P.), B., 550*.
- I. G. Farbenind. A.-G., condensation products of hydrogenated naphthalenes with ethylene, (P.), B., 855*.
- I. G. Farbenind. A.-G., Mittasch, A., and Müller, Carl, manufacture of iron carbonyl, (P.), B., 663*.
- I. G. Farbenind. A.-G., Mittasch, A., and Müller-Cunradi, M., manufacture of iron carbonyl compositions, (P.), B., 1066*.
- I. G. Farbenind. A.-G., Mittasch, A., Müller, Carl, and Linckh, E., manufacture of pure iron, (P.), B., 671*.
- I. G. Farbenind. A.-G., Mittasch, A., Müller, Carl, and Schubardt, W., manufacture of pure iron, (P.), B., 671*.
- I. G. Farbenind. A.-G., and Mond, A. L., casting of magnesium or magnesium alloys, (P.), B., 565.
- I. G. Farbenind. A.-G., Müller, Carl, Frankenburger, W., and Grassner, F., purification of organic liquids [aliphatic alcohols], (P.), B., 182.
- I. G. Farbenind. A.-G., Müller, Carl, and Schubardt, W., finely-divided metals from metal carbonyls, (P.), B., 671*.
- I. G. Farbenind. A.-G., Müller, Julius, and Hoffmann, U., manufacture of the dehydration product of sorbitol, (P.), B., 550*.
- I. G. Farbenind. A.-G., and Müller-Cunradi, M., manufacture of iron carbonyl, (P.), B., 12.
- I. G. Farbenind. A.-G., Müller-Cunradi, M., and Schmiking, M., sulphur preparations as plant disinfectants, (P.), B., 298.
- I. G. Farbenind. A.-G., and Münch, E., vaporisation of formamide, (P.), B., 8*.
- I. G. Farbenind. A.-G., manufacture of articles from molten carbon, (P.), B., 65*.
- I. G. Farbenind. A.-G., and Nicolai, F., production of phosphoric esters of aliphatic alcohols, (P.), B., 755*.
- I. G. Farbenind. A.-G., Nitzschke, O., and Noack, E., electrolytic manufacture of [per]-compounds containing active oxygen, (P.), B., 765*.
- I. G. Farbenind. A.-G., Pier, M., Müller-Cunradi, M., Wietzel, G., and Winkler, K., production of gases for the manufacture of oxygenated organic compounds [methyl alcohol], (P.), B., 754*.
- I. G. Farbenind. A.-G., Pier, M., and Winkler, K., production of carbon disulphide, (P.), B., 8*.
- I. G. Farbenind. A.-G., Polkier, H., and Hasselbach, A., manufacture of brown wool dyes, (P.), B., 410.
- I. G. Farbenind. A.-G., and Pungs, W., cleansing and emulsifying agent, (P.), B., 569*.
- I. G. Farbenind. A.-G., oxidation of fats, [oils], waxes, and resins, (P.), B., 1163*.
- I. G. Farbenind. A.-G., Pungs, W., and Frese, E., production of solid lubricants, (P.), B., 1015*.
- I. G. Farbenind. A.-G., Pungs, W., and Jahrstorfer, M., treatment of montan wax, (P.), B., 49*.
- I. G. Farbenind. A.-G., production of products from montan wax, (P.), B., 547*.
- I. G. Farbenind. A.-G., and Reppe, W., production of primary [aliphatic and cyclic] amines, (P.), B., 706*.
- I. G. Farbenind. A.-G., and Richter, E., preparation of coloured nitrocellulose varnishes, (P.), B., 572*.
- I. G. Farbenind. A.-G., Richter, E., and Becker, Willy, coating surfaces with cellulose varnishes, (P.), B., 1121*.
- I. G. Farbenind. A.-G., Röst-Grande, E. H. A., and Correns, E., replacing the water in a water-moist cellulose by an organic liquid, (P.), B., 900.
- I. G. Farbenind. A.-G., Rosenthal, L., and Kropp, W., compound from indene and phenols, (P.), B., 502*.
- I. G. Farbenind. A.-G., Rosenthal, L., and Lenhard, W., production of esters of saccharides of higher unsaturated fatty acids, (P.), B., 156*.
- I. G. Farbenind. A.-G., Schepss, W., Tietze, E., and Ossenbeck, A., manufacture [and application] of a moth-proofing material, (P.), B., 1107.
- I. G. Farbenind. A.-G., and Schlecht, L., production of acetone, (P.), B., 550*.
- I. G. Farbenind. A.-G., Schlosser, F., and Paquin, M., refining of raw oil of turpentine, (P.), B., 572*.
- I. G. Farbenind. A.-G., Schmidt, O., Seydel, K., and Meyer, E., production of artificial masses from casein, (P.), B., 999*.
- I. G. Farbenind. A.-G., and Schultze, H. S., preservation of dibasic calcium hypochlorite, (P.), B., 239*.
- I. G. Farbenind. A.-G., Schwaebel, G., and Schleicher, F., concentration of acetic acid, (P.), B., 754*.
- I. G. Farbenind. A.-G., Schwalbe, C. G., and Wenzl, H., rapid bleaching of vegetable fibres, (P.), B., 901.
- I. G. Farbenind. A.-G., Siedler, P. C. H., and Schulte, E., dissociation of sulphur vapour, (P.), B., 766*.
- I. G. Farbenind. A.-G., and Skutezky, R., manufacture of artificial sponges [from viscose], (P.), B., 814.
- I. G. Farbenind. A.-G., Specketer, H., and Henschel, G., production of chromates with simultaneous recovery of alumina, (P.), B., 713*.
- I. G. Farbenind. A.-G., Staden, H. A. von, Berenbruch, A., and Höhn, A., apparatus for continuous distillation of difficultly distillable liquids, (P.), B., 846*.
- I. G. Farbenind. A.-G., and Staib, K., manufacture of anhydrous magnesium chloride, (P.), B., 419*.
- I. G. Farbenind. A.-G., carrying out exothermic reactions; [production of calcium chloride], (P.), B., 1134.
- I. G. Farbenind. A.-G., Steindorff, A., and Weickert, O., insecticides, etc., (P.), B., 298.
- I. G. Farbenind. A.-G., and Stowener, F., manufacture of active silica, (P.), B., 373*, 419*.
- I. G. Farbenind. A.-G., and Suchy, R., production of phosphorus and alumina cement, (P.), B., 613*.
- I. G. Farbenind. A.-G., Thaus, A., Doser, A., and Mauthe, G., [resinous] condensation products obtainable from unsaturated higher fatty acids and phenols, (P.), B., 1121*.
- I. G. Farbenind. A.-G., Thode, C., and Benischek, A., electrical insulating masses for the construction of separation walls, (P.), B., 723.
- I. G. Farbenind. A.-G., Tschunkur, E., and Klamroth, A., purification of synthetic methyl alcohol, (P.), B., 234*.
- I. G. Farbenind. A.-G., and Voss, A., production of water-soluble condensation products [tanning agents], (P.), B., 340.
- I. G. Farbenind. A.-G., and Wagner, H., preparing hair for felting, (P.), B., 1106*.
- I. G. Farbenind. A.-G., and Wahl, O., manufacture of dyes from indoline bases, (P.), B., 364.
- I. G. Farbenind. A.-G., and Wietzel, G., manufacture of combustible gas containing hydrogen and carbon monoxide, (P.), B., 852.
- I. G. Farbenind. A.-G., and Wietzel, R., manufacture of aromatic derivatives of formamide, (P.), B., 1060*.
- I. G. Farbenind. A.-G., Wietzel, R., Schlecht, L., and Köhler, O., concentration and distillation of solutions of hydrogen peroxide, (P.), B., 103*.
- I. G. Farbenind. A.-G., and Winkler, F., electrical heating of liquids, (P.), B., 722.
- I. G. Farbenind. A.-G., manufacture of water-gas, (P.), B., 1057*.
- Ianikawa, K. See Matsumura, S.
- Ianitzky, A., phenomena in X-ray tubes, A., 982.
- Ibáñez, M. M., simplification of the determination of dextrose in blood by the Folin-Wu and Fontès-Thivolle methods, A., 236.
- Ibuka, B. See Yamagawa, M.
- Ichihara, M., production of large zinc crystals, A., 23.
- Ichikawa, S., twinning plane in a zinc crystal, A., 23.
- Ichikawa, S., and Fuda, S., compound of quinine with phenyl carbonate, A., 794.

- Iddekinge, *H. H. van*, band spectrum of sulphur, A., 971.
- Ide, *W. S.* See Buck, *J. S.*
- Ievinš, *A.*, recovery of precious metals from residues, B., 1157.
- Iglauer, *K.*, determination of the activity of catalase in leucocytes, A., 1200.
- Iimori, *S.*, and Kikuchi, *U.*, amounts of aromatic hydrocarbons in petroleum from Niigata Prefecture; extraction of xylenes from crude petroleum, B., 272.
- Iino, *K.*, blood of rabbits with sarcoma, A., 493.
- Ikeda, *K.*, utilisation of waste waters from beetroot sugar molasses [for production of glutamic acid], (P.), B., 220.
- Ikohara, *S.* See Beattie, *J. A.*
- Ikeno, *R.* See Kato, *Y.*
- Iki, *S.*, moisture and combined water contained in coal, B., 271.
relation between caking power and coking test of coal. I. Tests by Lessing's apparatus. II. Influence of weathering, B., 309.
behaviour of coal during carbonisation. I. Change of moisture-absorbing power of coal by carbonisation. II. Change of electrical conductivity of coal during carbonisation. III. Change of composition of coal by carbonisation, B., 973.
- Ikuta, *H.*, and Ueno, *Sei-ichi*, composition of the saturated fatty acids of Japanese sardine, oil, B., 1036.
- Ikuta, *H.* See also Ueno, *Sei-ichi*.
- Ilge, *W.* See Herrmann, *K.*
- Iljoff, *N.* See Benrath, *A.*
- Iliesco, *N.* See Grignard, *V.*
- Iljin, *B.*, sedimentation and wetting; artificial inversion of the heating effect in wetting and the problem of heat of wetting in physico-chemical analysis, A., 153.
- Iljin, *G. S.*, process of nicotine formation during germination of tobacco seeds, B., 115.
- Iljin, *W.*, behaviour of the animal organism in pancreatic diabetes towards various carbohydrates. II. Sodium hexosediphosphate, A., 365.
- Iljinski, *M. A.*, and Kozlov, *V. V.*, adsorption of mineral colours by wool fibre from aqueous suspension, A., 991.
- Iljinski, *V. P.*, and Sagaidatschni, *A. F.*, polythermic region of crystallisation of Glauber salt in the system: $2\text{NaCl} + \text{MgSO}_4 \rightleftharpoons \text{Na}_2\text{SO}_4 + \text{MgCl}_2$, A., 544.
- Illari, *G.*, determination of halogens in organic substances, A., 101.
- Ilies, *R.* See Windisch, *W.*
- Illing, *E. T.* See Wood, *D. R.*
- Illingworth, *S. R.*, and Illingworth Carbonization Co., Ltd., apparatus for manufacture of carbonised fuel, (P.), B., 274*.
carbonisation of coal, etc., (P.), B., 1099.
- Illingworth, *S. R.* See also Illingworth Carbonization Co., Ltd.
- Illingworth, *W. S.* See Hammick, *D. L.*
- Illingworth Carbonization Co., Ltd., and Illingworth, *S. R.*, apparatus for carbonisation of coal and similar material, (P.), B., 448, 497.
apparatus for heat treatment of the volatile products from carbonisation of coal, (P.), B., 497.
- Illingworth Carbonization Co., Ltd., Illingworth, *S. R.*, South Metropolitan Gas Co., and Evans, *E. V.*, apparatus for the carbonisation of coal and similar material, (P.), B., 497.
- Illingworth Carbonization Co., Ltd. See also Illingworth, *S. R.*
- Illinois Stoker Co. See Polster, *J. P.*
- Imahasi, *T.*, effect of quinine on blood-sugar, A., 497.
- Imai, *G.*, production of cement, (P.), B., 511.
- Imai, *S.* See Urano, *S.*
- Imamura, *T.*, relation between hormones and bacterial toxins, especially the influence of follicle liquid on tetanus toxin in relation to the uterine hormone, A., 603.
- Imanishi, *S.*, electronic fine structure in helium bands, A., 649.
fine structures in the band spectra of hydrogen and helium examined under high resolution, A., 1327.
- Imhausen, *A.*, manufacture of soaps, (P.), B., 1163.
- Imhof, *H.* See Otto, *H.*
- Imhoff, *W. G.*, destructive action of zinc, at and above galvanising temperatures, on metals and alloys. V. Cast iron, malleable iron, case-hardened and alloy steels, B., 615.
destructive action of zinc, at and above galvanising temperatures, on metals and alloys. VII. Nickel and nickel alloys, B., 1114.
- Immendörfer, *E.* See Bergmann, *M.*
- Immendörff, *H.*, and Weber, *C. A.*, seven-year investigation of permanent grass-land flooded by water carrying potash effluents, B., 74.
- Imperial Chemical Industries, Ltd., apparatus for carrying out reactions continuously in the liquid phase under increased pressure, (P.), B., 690.
- Imperial Chemical Industries, Ltd., and Allechin, *L. J.*, manufacture of *m*-2-xyldine, (P.), B., 705.
- Imperial Chemical Industries, Ltd., and Andrews, *W.*, welding of copper, (P.), B., 953.
- Imperial Chemical Industries, Ltd., Atkins, *G. R.*, and Corner, *G. H. C.*, dust removal from gases, (P.), B., 41.
- Imperial Chemical Industries, Ltd., Baird, *W.*, Hill, *R.*, and Walker, *E. E.*, synthetic resinous compositions, (P.), B., 677.
- Imperial Chemical Industries, Ltd., Baird, *W.*, and Walker, *E. E.*, manufacture of resins primarily obtained from polyhydric alcohols and polybasic acids, (P.), B., 1120.
- Imperial Chemical Industries, Ltd., Bennett, *N.*, and Dodd, *H.*, separation of aluminium chloride from other metal chlorides, (P.), B., 373.
- Imperial Chemical Industries, Ltd., Bennett, *N.*, Dodd, *H.*, Sprent, *W. C.*, and Holt, *F.*, manufacture of benzyl chloride, (P.), B., 1058.
- Imperial Chemical Industries, Ltd., Birchall, *T.*, and Coffey, *S.*, manufacture of *NN'*-thio-derivatives of amines [*NN'*-disulphides], (P.), B., 895.
- Imperial Chemical Industries, Ltd., Blackshaw, *H.*, and Lawrie, *L. G.*, apparatus for examination of dyed materials in artificial light, (P.), B., 321.
- Imperial Chemical Industries, Ltd., Boyce, *S. R.*, and Tate, *W. R.*, introducing liquid or semi-liquid materials into high-pressure vessels, (P.), B., 127.
- Imperial Chemical Industries, Ltd., and Bramwell, *F. H.*, lining vessels for carrying out operations with liquids, etc., (P.), B., 887.
- Imperial Chemical Industries, Ltd., and Brightman, *R.*, dyeing of regenerated cellulose rayon, (P.), B., 370.
dyeing of regenerated cellulose materials, (P.), B., 709, 762, 986, 1024.
manufacture of azo-dyes [for wool, viscose silk, or acetate silk], (P.), B., 756.
manufacture of [dis]azo-dyes and their application to the dyeing of regenerated cellulose materials, (P.), B., 756.
manufacture of azo-dyes and their application to the dyeing of regenerated cellulose materials, (P.), B., 811.
[tris]azo-dyes and their application to the dyeing of regenerated cellulose rayon, (P.), B., 897.
manufacture of [dis]azo-dyes [for viscose silk] and their application, (P.), B., 983.
azo-dyes, (P.), B., 1019.
- Imperial Chemical Industries, Ltd., Brightman, *R.*, and Wellacott, *W. L. B.*, manufacture of azo-dyes [for viscose silk], (P.), B., 982.
dyeing of regenerated cellulose materials, (P.), B., 1024.
- Imperial Chemical Industries, Ltd., and Bunn, *C. W.*, manufacture of ammonium chloride crystals, (P.), B., 556.
- Imperial Chemical Industries, Ltd., Chapman, *E.*, and Hill, *A.*, pickling of metals, (P.), B., 953*.
- Imperial Chemical Industries, Ltd., and Clarke, *R. B. F. F.*, apparatus for making emulsions or dispersions, (P.), B., 887.
- Imperial Chemical Industries, Ltd., and Cocksedge, *H. E.*, apparatus and method for crystal growth, (P.), B., 971.
separation of soluble substances [e.g., salts], (P.), B., 1109.
- Imperial Chemical Industries, Ltd., and Coffey, *S.*, prevention of knocking in internal-combustion engines, (P.), B., 274.
manufacture of triarylcannabinols, (P.), B., 500.
- Imperial Chemical Industries, Ltd., Coffey, *S.*, and Naunton, *W. J. S.*, manufacture of age-resisting rubber compounds, (P.), B., 626.
- Imperial Chemical Industries, Ltd., Coffey, *S.*, Naunton, *W. J. S.*, and Shepherdson, *A.*, vulcanisation of rubber, etc., (P.), B., 730.
- Imperial Chemical Industries, Ltd., Coulthard, *A.*, and Rodd, *E. H.*, manufacture of xanthen dyes and their use, (P.), B., 276.
- Imperial Chemical Industries, Ltd., Crawford, *J. W. C.*, and Scharff, *G. E.*, preparation of pigments, etc., (P.), B., 156.
- Imperial Chemical Industries, Ltd., Davidson, *A.*, Hailwood, *A. J.*, Henesey, *F.*, and Shepherdson, *A.*, manufacture of stable leuco-indigo preparations, (P.), B., 604.
- Imperial Chemical Industries, Ltd., Davies, *G. P.*, and Jenkins, *W. J.*, cellulose esters and ethers and their uses, (P.), B., 656, 760.

- Imperial Chemical Industries, Ltd., Dellow, *H. A. N.*, and Wright, *C. M.*, drying processes [for grass], apparatus therefor, and products thereof, (P.), B., 878.
- Imperial Chemical Industries, Ltd., and D'Leny, *W.*, purification of gases, (P.), B., 752.
- Imperial Chemical Industries, Ltd., D'Leny, *W.*, and Park, *J. R.*, purification of gases [*e.g.*, coal gas] containing hydrogen sulphide, (P.), B., 805.
- Imperial Chemical Industries, Ltd., Dunn, *J. S.*, and Briers, *F.*, production of phosphorus oxychloride, (P.), B., 1151.
- Imperial Chemical Industries, Ltd., and Etridge, *J. J.*, preparation of stannic oxide gels, (P.), B., 1028.
- Imperial Chemical Industries, Ltd., and Fleck, *A.*, production of quicklime and sulphur dioxide, (P.), B., 862.
- Imperial Chemical Industries, Ltd., and Fleming, *J. S. B.*, treatment of nitrocellulose, (P.), B., 442.
- Imperial Chemical Industries, Ltd., Fletcher, *W. B.*, Wheeler, *T. S.*, and McAulay, *J.*, production of carbon disulphide, (P.), B., 862.
- Imperial Chemical Industries, Ltd., and Foster, *B. W.*, coating materials and their preparation, (P.), B., 872.
- Imperial Chemical Industries, Ltd., and Franklin, *R. G.*, catalysts for the catalytic production of methyl alcohol and other oxygenated organic compounds from oxides of carbon and hydrogen, (P.), B., 946*.
- Imperial Chemical Industries, Ltd., Gibson, *W.*, Hailwood, *A. J.*, Payman, *J. B.*, and Shepherdson, *A.*, naphthalene derivatives and their applications in dye preparations, (P.), B., 1060*.
- application of naphthalene derivatives to dye preparations, (P.), B., 1060*.
- Imperial Chemical Industries, Ltd., Gibson, *W.*, and Henshaw, *C. R.*, purification of triaryl phosphates, (P.), B., 95.
- Imperial Chemical Industries, Ltd., Gibson, *W.*, Henshaw, *C. R.*, and Payman, *J. B.*, manufacture of triaryl phosphates, (P.), B., 95.
- Imperial Chemical Industries, Ltd., Gibson, *W.*, and Payman, *J. B.*, manufacture of monoalkyl ethers of ethylene glycol, (P.), B., 315, 941*.
- Imperial Chemical Industries, Ltd., and Grant, *F. B.*, charging of powders into furnaces and other reaction chambers, (P.), B., 1095.
- Imperial Chemical Industries, Ltd., Grant, *F. B.*, and Harper, *H.*, feeding finely-divided solid material into high-pressure vessels, (P.), B., 844.
- Imperial Chemical Industries, Ltd., Hailwood, *A. J.*, Shepherdson, *A.*, and Stewart, *A.*, manufacture of emulsions, (P.), B., 361.
- preparation of colloiddally dispersed materials, especially pigments in different media, (P.), B., 571.
- Imperial Chemical Industries, Ltd., Harper, *H.*, and Scott, *R.*, production of mixtures of finely-divided solids and gases, (P.), B., 590.
- Imperial Chemical Industries, Ltd., and Harris, *C. G.*, separation of gases or vapours, (P.), B., 978.
- Imperial Chemical Industries, Ltd., and Harrison, *C. F. R.*, production of hydrogen [from methane], (P.), B., 893.
- destructive hydrogenation of coal, oils, etc., (P.), B., 977, 1012.
- Imperial Chemical Industries, Ltd., Harrison, *C. F. R.*, and Labrow, *S.*, releasing the pressure of mixtures of solids and liquids existing under high pressure, (P.), B., 971.
- Imperial Chemical Industries, Ltd., Harrison, *C. F. R.*, and Strong, *H. W.*, destructive hydrogenation of solid carbonaceous material, (P.), B., 892.
- Imperial Chemical Industries, Ltd., Hepworth, *H.*, and Leicester, *F. D.*, manufacture of acetic anhydride, (P.), B., 1142.
- Imperial Chemical Industries, Ltd., and Hollins, *J.*, electrodeposition of metals, (P.), B., 334.
- Imperial Chemical Industries, Ltd., and Horsley, *G. F.*, hydrogenation of crotonaldehyde, (P.), B., 275.
- production of isopropyl alcohol, (P.), B., 602.
- production of esters, (P.), B., 810*.
- production of acetaldehyde from acetylene, (P.), B., 1058.
- Imperial Chemical Industries, Ltd., Horsley, *G. F.*, and Roffey, *F.*, removal of acetylene from gases, (P.), B., 978.
- Imperial Chemical Industries, Ltd., and Hucks, *R. T.*, preparation of coating materials and plastic masses, (P.), B., 678.
- Imperial Chemical Industries, Ltd., Hughes, *G. E.*, Waring, *A. H.*, and Braham, *J. E.*, distillation of water, (P.), B., 1006.
- Imperial Chemical Industries, Ltd., and Hull, *P. H.*, recovery of acetylene from gaseous mixtures, (P.), B., 978.
- Imperial Chemical Industries, Ltd., and Hunter, *T. G.*, cracking or destructive hydrogenation of oils, or suspensions of coal in oil, (P.), B., 854.
- Imperial Chemical Industries, Ltd., Kamm, *E. D.*, and Odams, *R. C.*, conversion of mineral oils into hydrocarbons of low b. p., (P.), B., 450.
- Imperial Chemical Industries, Ltd., and Kenner, *J.*, manufacture of *m*-2-xylydine, (P.), B., 603.
- Imperial Chemical Industries, Ltd., and Leicester, *F. D.*, concentration of aqueous acetic or formic acid, (P.), B., 1015.
- Imperial Chemical Industries, Ltd., Linch, *F. W.*, Rodd, *E. H.*, and Frew, *H. K.*, lakes of triarylmethane dyes, (P.), B., 856.
- Imperial Chemical Industries, Ltd., Lodge, *F.*, and Tatum, *W. W.*, manufacture of anthraquinone derivatives, (P.), B., 363.
- preparation of dyes of the anthraquinone series [for wool and acetate silk], (P.), B., 605.
- Imperial Chemical Industries, Ltd., Moore, *J. W.*, and Polack, *W. G.*, manufacture of ammonium chloride, (P.), B., 1066*.
- Imperial Chemical Industries, Ltd., Morgan, *H. H.*, and Drummond, *A. A.*, treatment of tung oil and mixtures containing the same, (P.), B., 725.
- synthetic resin varnishes and synthetic resins, (P.), B., 780, 828.
- Imperial Chemical Industries, Ltd., Morgan, *H. H.*, Drummond, *A. A.*, and Attfield, *G. C.*, synthetic resin varnishes and synthetic resins, (P.), B., 677.
- Imperial Chemical Industries, Ltd., and Parrett, *A. N.*, rubber-coated fabrics, etc., (P.), B., 432.
- Imperial Chemical Industries, Ltd., and Paterson, *J. H.*, electrodes for use in arc-welding, (P.), B., 336.
- Imperial Chemical Industries, Ltd., Piggott, *H. A.*, and Rodd, *E. H.*, manufacture of indoles, (P.), B., 809.
- Imperial Chemical Industries, Ltd., Pope, *R. W.*, and Wyler, *M.*, manufacture of sulphide dyes from azines, (P.), B., 1103*.
- Imperial Chemical Industries, Ltd., Riley, *R.*, and Rowell, *S. W.*, recovery of mercury [from catalyst sludges], (P.), B., 914.
- Imperial Chemical Industries, Ltd., Rodd, *E. H.*, and Sharp, *F. L.*, triarylmethane dyes, (P.), B., 1144.
- Imperial Chemical Industries, Ltd., and Rowell, *S. W.*, production of acetic acid [from acetaldehyde], (P.), B., 94.
- Imperial Chemical Industries, Ltd., Rowell, *S. W.*, and Hirst, *H. S.*, oxidation of acetaldehyde to acetic acid, (P.), B., 1103*.
- Imperial Chemical Industries, Ltd., and Saunders, *K. H.*, manufacture of leuco-indigo, (P.), B., 706.
- apparatus for carrying out reactions continuously in the liquid phase, under increased pressure, (P.), B., 1134.
- Imperial Chemical Industries, Ltd., and Scharff, *G. E.*, preparation of leather cloth, etc., (P.), B., 987.
- Imperial Chemical Industries, Ltd., Shepherdson, *A.*, and Smith, *L.*, printing of materials containing cellulose esters or ethers, (P.), B., 762.
- Imperial Chemical Industries, Ltd., Shepherdson, *A.*, and Tatum, *W. W.*, manufacture of [wool] dyes of the anthraquinone series, (P.), B., 982.
- Imperial Chemical Industries, Ltd., and Slade, *R. E.*, production of briquetted fuel, (P.), B., 132.
- Imperial Chemical Industries, Ltd., and Smith, *C. C.*, production of solid calcium nitrate, (P.), B., 373.
- Imperial Chemical Industries, Ltd., and Smith, *L.*, printing of textile fabrics [resists against synthetic mordants], (P.), B., 506.
- Imperial Chemical Industries, Ltd., and Speight, *E. A.*, dyeing of cellulose esters and ethers, (P.), B., 1149*.
- Imperial Chemical Industries, Ltd., and Stickland, *O. W.*, smokeless powders, (P.), B., 303.
- Imperial Chemical Industries, Ltd., and Strong, *H. W.*, destructive hydrogenation of brown coal and other oxygen-containing low-grade fuels, (P.), B., 892.
- production of hydrocarbons of low b. p. from those of higher b. p., (P.), B., 1014.
- Imperial Chemical Industries, Ltd., Tate, *W. R.*, and Stephenson, *H. P.*, treatment of carbonaceous materials prior to destructive hydrogenation, (P.), B., 229.
- destructive hydrogenation [of oils, tars, suspensions of coal, etc.], (P.), B., 498.
- hydrogenation of coal, oils, and similar materials, (P.), B., 498.
- destructive hydrogenation, (P.), B., 546, 598.
- heating hydrogen for use in destructive hydrogenation, (P.), B., 662.

- Imperial Chemical Industries, Ltd., Tate, W. R., and Stephenson, H. P., destructive hydrogenation of tars, oils, suspensions of carbonaceous materials in oils, etc., (P.), B., 700.
feeding pastes of coal and oil, etc., into hydrogenation converters, (P.), B., 752.
preheating of carbonaceous materials prior to their destructive hydrogenation, (P.), B., 936.
- Imperial Chemical Industries, Ltd., Tate, W. R., Stephenson, H. P., and Dean, H. P., releasing the pressure of mixture of solids and liquids existing under high pressure, (P.), B., 746.
- Imperial Chemical Industries, Ltd., and Tattersall, H. J., preventing development of rancidity in vegetable oils, (P.), B., 871.
- Imperial Chemical Industries, Ltd., and Tatum, W. W., manufacture of anthraquinone intermediates and dyes, (P.), B., 1059.
- Imperial Chemical Industries, Ltd., and Traill, D., manufacture of benzyl cellulose, (P.), B., 610.
- Imperial Chemical Industries, Ltd., and Tyrer, D., removal of ammonia from coal-distillation gases, (P.), B., 92.
production of a mixture of hydrogen and carbon monoxide by decomposition of hydrocarbon gases or vapours in the presence of steam, (P.), B., 312.
water-gas generators, (P.), B., 498, 751.
production of hydrogen [from methane], (P.), B., 613.
cooling of coke, (P.), B., 852.
- Imperial Chemical Industries, Ltd., Tyrer, D., and Watts, H. G., production of water-gas, (P.), B., 892.
- Imperial Chemical Industries, Ltd., and Watts, H. G., destructive hydrogenation of coal, oils, etc., (P.), B., 977.
- Imperial Chemical Industries, Ltd., and Wheeler, T. S., decomposition of hydrocarbons to produce hydrocarbons of higher mol. wt., (P.), B., 406.
production of hydrocyanic acid, (P.), B., 508.
preparation of alkyl cyanides, (P.), B., 1058.
- Imperial Chemical Industries, Ltd., Wheeler, T. S., and McAulay, J., pyrolysis of unsaturated hydrocarbons, (P.), B., 1014.
- Imperial Chemical Industries, Ltd., Wheeler, T. S., McAulay, J., Fletcher, W. B., and Mills, H. A. T., production of hydrogen cyanide, (P.), B., 1150.
- Imperial Chemical Industries, Ltd., and Winter, R. M., method of concentrating caustic alkalis, (P.), B., 1026.
- Imperial Chemical Industries, Ltd., Winter, R. M., Hull, P. H., and Ferguson, J., production of acetylene, (P.), B., 893.
- Imperial Chemical Industries, Ltd., and Woolecock, J. W., production of acetaldehyde from ethyl alcohol, (P.), B., 409.
production of compounds from propylene, (P.), B., 1058.
- Imperial Chemical Industries, Ltd., and Wyler, M., manufacture of sulphide dyes, (P.), B., 811, 1145*.
manufacture of intermediates for dyes, (P.), B., 940.
manufacture of basic dyes [of the rhodamine series], (P.), B., 983.
- Imperial Institute, composition of sisal hemp from different countries, B., 137.
Eucalyptus saligna as a source of wood pulp for paper and artificial silk, B., 137.
Allanblackia Stuhlmannii seeds from Tanganyika territory, B., 154.
tanning value of *Anogeissus latifolia* leaves, B., 159.
Cymbopogon oils from India, B., 166.
retene and its derivatives, B., 314.
Hydnocarpus anthelmintica seed from Ceylon, B., 467.
tannin content of *Acacia arabica* pods, B., 473.
essential oils, B., 485.
shea nuts from Nigeria, B., 825.
- Imre, L., adsorption processes in precipitates undergoing coagulation. I. Adsorption of lead, bismuth, and thallium on silver and mercurous halides, A., 287.
adsorption of soluble and sparingly soluble electrolytes on precipitates having a large surface, A., 1365.
- Inaba, M., parathyroid hormone and calcium metabolism, A., 1624.
- Inaba, R. See Goto, K.
- Indenbaum, V. S., Bezradecki, G. N., and Schischakov, N. F., regenerative soda-oven at straw-cellulose factory, B., 317.
- Indenbaum, V. S., and Ognev, N. M., heat power economy of a paper and straw-cellulose factory, B., 317.
- Industrial Associates, Inc. See Jones, A. B.
- Industrial Dryer Corporation, and Harris, G. D., humidifying apparatus; humidifying or conditioning materials, (P.), B., 40.
- Industrial Heating Equipment Co. See Buysse, C. E.
- Industrial Process Corporation. See Minor, H. R.
- Industrial Spray-Drying Corporation. See Lamont, D. R.
- Industrial Technics Corporation. See Arsem, W. C.
- Industrial Waste Products Corporation. See Dickerson, W. H.
- Industries of America, Inc. See Briggs, A. J.
- Industriemiska Aktiebolaget, evaporating method and means therefor, (P.), B., 888.
- Infra, Sorrel, V., and Lafont, L. A., continuous process and furnace for the thermal treatment of metals, etc., (P.), B., 379.
- Inganni, A. See Ferrari, A.
- Inge, (Miss) L., and Walther, A., dielectric breakdown in crystals, A., 1504.
- Inge, (Miss) L. See also Walther, A.
- Ingeberg, H. C. M., and Vesterlid, A., manufacture of material for [heat] insulation and constructional purposes, (P.), B., 665.
- Ingersoll, C. D., and Davis, R. E., measurement of turbidity, A., 1151.
- Ingersoll, L. R., sputtered nickel films and the synthesis of ammonia, A., 1258.
determination of strain in glass by a radiation method, B., 144.
- Ingham, J. W., apparent hydration of ions. IV. Densities and viscosities of saturated solutions of silver nitrate in nitric acid, A., 540.
- Inglis, D. R. See Laporte, O.
- Ingold, C. K., mechanism of, and constitutional factors controlling, the hydrolysis of carboxylic esters. I. Constitutional significance of hydrolytic stability maxima, A., 868.
mechanism of, and the constitutional factors controlling, the hydrolysis of carboxylic esters. III. Calculation of molecular dimensions from hydrolytic stability maxima, A., 1131.
mechanism of cyanoacetamide and cyanoacetic ester condensations, A., 1170.
- Ingold, C. K., and Jessop, J. A., influence of poles and polar linkings on course pursued by elimination reactions. VI. 1:1-Elimination in the degradation of quaternary ammonium hydroxides, A., 73.
influence of poles and polar linkings on course pursued by elimination reactions. VIII. Methylenic and paraffinic degradations of sulphones. IX. Isolation of a substance believed to contain a semipolar double linking with participating carbon, A., 759.
- Ingold, C. K., and Patel, C. S., principles underlying aromatic side-chain reactivity from the viewpoint of the electronic theory of valency, A., 758.
- Ingold, C. K., and Shoppee, C. W., spatial configuration of single valencies of allene, A., 1163.
- Ingold, C. K. See also Baker, J. W., Burton, H., Fenton, G. W., and Groocock, C. J.
- Ingraham, W. T., deterioration of mercury fulminate when stored under water, B., 395.
- Ingram, A., building blocks, (P.), B., 559.
- Inhabad-Ges.m.b.H., gas mask and similar appliances generating their own oxygen, (P.), B., 688.
- Innes, R. F., natural fats of goatskins and their relation to the formation of fatty spue in chrome[-tanned] leather, B., 627.
- Inoue, K., determination of the total acidity of gastric juice, A., 1204.
determination of the net volume of precipitated proteins in albuminuria, A., 1610.
- Inoue, T., bacteriophage derivative of pancreatin, A., 820.
- Inoue, T. See also Pfeiffer, P.
- Inoue, Y. See Suzuki, B.
- Inouye, J., manufacture of acid- and water-proof black ink, (P.), B., 111*.
- Inouye, J. M., salivary mucin, A., 1204.
- Insulex Corporation. See Nelson, W. K.
- Intercontinental Rubber Co. See Spence, D.
- Interessen Gemeinschaft der Farbenindustrie Akt.-Ges. See I. G. Farbenind. A.-G.
- International Bitumenoil Corporation, vapour condensers and scrubbers, (P.), B., 41.
method and apparatus for low-temperature distillation, (P.), B., 272.
- International Bitumenoil Corporation. See also Nilson, L. G.

- International Coal Carbonization Co. See Cantieny, *G.*, and Runge, *W.*
- International Combustion, Ltd., and Rosencrants, *F. H.*, pulverising mills, (P.), B., 692.
- International Combustion Engineering Corporation, heat-exchange tubes, (P.), B., 644.
- International Combustion Engineering Corporation, and Kreisinger, *H.*, pulverising mills, (P.), B., 970.
- International Combustion Engineering Corporation. See also Kreisinger, *H.*, and Wood, *W. R.*
- International Construction Co., Ltd., Jones, *B. P.*, and Middleton, *J. H.*, [heating] furnaces [for metal bars, etc.], (P.), B., 745.
- International Fireproof Products Co. See Vivas, *F. S.*
- International General Electric Co., Inc., and Allgemeine Elektrizitäts-Gesellschaft, manufacture of bearing metals, (P.), B., 19.
- electron discharge device, (P.), B., 22.
- manufacture of electrically insulating materials, (P.), B., 202, 869, 954.
- refrigerating machines, (P.), B., 271.
- manufacture of multiple metals [iron impregnated with copper], (P.), B., 426.
- manufacture of artificial silk [from synthetic resin], (P.), B., 456.
- artificial resins and their manufacture, (P.), B., 470.
- power plants and apparatus therefor, (P.), B., 490.
- manufacture of laminated magnetic bodies, etc., (P.), B., 673.
- electric insulating material, (P.), B., 775.
- X-ray tubes, (P.), B., 825.
- drying kilns, (P.), B., 885.
- [shaped] bodies from fibrous materials, (P.), B., 1022.
- light-sensitive plates, etc., (P.), B., 1092.
- manufacture of [vitreous] heat-resisting insulating material, (P.), B., 1160.
- International Industrial & Chemical Co., Ltd., manufacture of alkali carbonates, (P.), B., 987.
- International Kreemaka Co., Ltd. See Eaton, *A. C.*
- International Nickel Co., and Merica, *P. D.*, [chromium-nickel] alloys, (P.), B., 670.
- International Nickel Co., Shoffstall, *A. S.*, and Brown, *H. M.*, conveyors for [sheet-metal annealing] furnaces, (P.), B., 334.
- International Nickel Co. See also Harshaw, *W. J.*, and Mudge, *W. A.*
- International Patent Corporation. See Haglund, *T. R.*
- International Patents Development Co., manufacture of starch products, (P.), B., 963.
- continuous conversion of starch, (P.), B., 1085.
- International Patents Development Co. See also Newkirk, *W. B.*
- International Precipitation Co. See Viets, *F. H.*, Welch, *H. V.*, and Witte, *G. A.*
- International Sugar & Alcohol Co., Ltd., treatment of cellulose-containing materials with mineral acids, (P.), B., 11.
- International Wheat Malt Syrup Co., wheat [malt] syrup and its manufacture, (P.), B., 478.
- Internationale Bergin Compagnie voor Olie- en Kolen-Chemie, obtaining more economical running of coke-oven plants, etc., (P.), B., 91.
- purification and hydrogenation of heavy mineral oils, tars, and suspensions of coal in oil, (P.), B., 273.
- Internationale Holding de Distillation et Cokéfaction à Basse Température et Minière (Holcobami) Société Anonyme. See Comp. Gén. de Distillation et Cokéfaction à Basse Température et Minière (Intertrust) Soc. Anon.
- Internationale Nahrungs- & Genussmittel Akt.-Ges. (Inga). See Staudinger, *H.*
- Inubuse, *M.* See Asahina, *Y.*
- Inubashi, *M.* See Kami, *Y.*
- Inukai, *H.*, soluble starch, B., 526.
- Inventia Patent-Verwertungs-Gesellschaft, disinfecting, insect-destroying, deodorising, or perfuming process and [vacuum-cleaner] apparatus therefor, (P.), B., 588.
- Ioanid, *N.* See Bridel, *M.*, and Maxim, *N. N.*
- Ioanid, *N. J.*, detection of alkaloids in viscera by Florence's method, A., 1486.
- Ionesco-Matiu, *A.*, and Popesco, *C.*, identification and determination of methyl alcohol in presence of ethyl alcohol, A., 1303.
- Ionesco-Matiu, *A.*, and Vitner, (*Mlle.*) *M.*, determination of phosphorus in blood, A., 631.
- determination of blood-sugar (Baudouin, Ionescu-Matiu, and Hagedorn), A., 1055.
- Ionescu, *M. V.*, new reaction for aryl aldehydes, A., 606.
- Ipatiev, *V. N.*, [separation of crystalline hydroxides of aluminium and chromium from solutions of their salts at high temperatures and under high pressures], A., 1387.
- Ipatiev, *V. N.*, and Dolgov, *B. N.*, rupture of naphthylmethane derivatives by hydrogenation under pressure, A., 210.
- Ipatiev, *V. N.*, and Frost, *A. V.*, chemical equilibrium between phosphine, phosphorus, and hydrogen, A., 995, 1522.
- Ipatiev, *V. N.*, and Muromtzev, *B.*, displacement of metals and their oxides from solutions of their salts by hydrogen at high temperatures and pressures; action of hydrogen on metallic nitrates, A., 306.
- Ipatiev, *V. N.*, and Orlov, *N. A.*, pyrogenic decomposition of aromatic compounds under pressure by means of hydrogen in presence of a mixed catalyst. II., A., 172*.
- Ipatiev, *V. N.*, Orlov, *N. A.*, and Lichatschev, *N. D.*, cracking of cyclic hydrocarbons with hydrogen at high pressures, A., 331.
- Ipatiev, *V. N.*, and Petrov, *A. D.*, hydrolysis of naphthenic acids at elevated temperatures and cracking under pressure of hydrogen, B., 5.
- Ipatiev, *V. N.*, Petrov, *A. D.*, and Ivanov, *I. Z.*, cracking of primary tar from a coal of Donetzki Basin under hydrogen pressure, B., 309.
- Ipatiev, *V. N.*, and Razubaiev, *G.*, displacement of the elements of the fifth group from their phenyl derivatives by hydrogen, A., 937.
- Ipatiev, *V. N.*, Razubaiev, *G.*, and Bogdanov, *I. F.*, action of hydrogen under high pressure on metallo-organic compounds. I., A., 428, 463.
- Ipatiev, *V. N.*, Razubaiev, *G.*, and Malinovski, *V.*, displacement of metals from solutions of their salts by hydrogen at high temperatures and pressures; displacement of arsenic from its salts by hydrogen, A., 306.
- Ipatiev, *V. N.*, Razubaiev, *G.*, and Sizov, *A.*, synthesis of arsenic α -chlorostyryl dichloride, A., 354.
- synthesis of α -chlorostyryldichloroarsine, A., 626.
- Ipatiev, *V. N.*, and Vasilevski, *V. V.*, manufacture of sulphur chloride from pyrites, alkaline-earth sulphates, and refuse from gas purifiers, B., 710.
- Ipsen, *C. L.* See Brit. Thomson-Houston Co., Ltd.
- Ipsen, *W.* See Winterfeld, *K.*
- Iramdar, *R. S.*, and Varadpande, *K. V.*, permeability of plant-cell membranes to sugar, A., 120.
- Iredale, *T.*, and Mallen, (*Miss*) *C. E.*, reaction between cupric chloride and hydrazine sulphate, A., 556.
- Iredale, *T.*, and Mills, *A. G.*, energies of the C-I and C-Br linkings, A., 1498.
- Iredale, *T.*, and Wallace, *W. N. W.*, heats of dissociation and absorption spectra of some complex molecules, A., 132.
- Ireton, *H. J. C.*, and Keast, (*Miss*) *A. M.*, infra-red spectra of certain rare earths and other elements, A., 12.
- Ireton, *H. J. C.* See also McLennan, *J. C.*
- Irmisch, *G.* See Schroeter, *G.*
- Irons, *E. J.*, velocity of sound in soft and brittle substances, A., 1507.
- Irvin, *R.*, air filter, (P.), B., 353.
- Irvine, (*Sir*) *J. C.*, and Oldham, *J. W. H.*, condensation of dextrose and γ -fructose; conversion of sucrose into isosucrose, A., 197.
- Irving, *H.* See Chattaway, *F. D.*
- Irving, *L.*, Ferguson, *J. K. W.*, and Plewes, *F. B.*, source of expired carbon dioxide and the site of its retention, A., 942.
- Irving, *L.* See also Ferguson, *J. K. W.*
- Irwin, *J.* See Monk, *R. H.*
- Irwin, *J. C.*, jun., and Tranin, *S.*, edible compound including egg products, (P.), B., 347.
- Irwin, *M.*, penetration of dyes. IV. Penetration of brilliant-cresyl-blue into *Nitella flexilis*. V. Why does azure-B penetrate more readily than methylene-blue or crystal-violet? A., 1482.
- Irwin, *M. H.*, Brandt, *A. E.*, and Nelson, *P. M.*, statistical methods in the biological assay of vitamins. I. Effect of variables. II. Number of animals, A., 1480.
- Isaac, *L. A.* See Ray, *G. B.*
- Isaac, *S.*, and Siegel, *R.*, posterior pituitary lobe in diabetes insipidus and the mechanism of its action, A., 962.
- Isacescu, *D. A.* See Nenitzescu, *C. D.*
- Isachenko, *V. B.* See Saldau, *P. Y.*
- Isbekov, *W.*, decomposition potential of solutions of metal bromides in fused zinc bromide, A., 298.

- Isbell, H. S., optical rotation and ring structure in the sugar group; optical rotation of the various asymmetric carbon atoms in the hexose and pentose sugars, A., 581.
- Isbell, H. S. See also Kharasch, M. S.
- Iseki, T., behaviour of the inorganic constituents on incubation of hen's eggs, A., 952.
- Iser, M. See Gross, P.
- Isermann, S., Orelup, J. W., and Ohlsson, E., denaturant [for ethyl alcohol], (P.), B., 164.
- Isgarishev, N. A., and Belaiev, A. K., activation of chemical reactions by salts. V. Oxidation of potassium iodide by dichromate, A., 868.
- Isgarishev, N. A., and Gruzdeva, N. M., activation of chemical reactions by salts. IV. Electrochemical production of ammonium persulphate, A., 868.
- Isgarishev, N. A., and Pletenev, S. A., *E.M.F.* of the hydrogen electrode in organic acids, A., 1124.
- Isgarishev, N. A., and Ravikovitch, C. M., activation of chemical reactions by salts. VI. Cathodic polarisation during electrolysis, A., 864.
- Isgarishev, N. A., and Schapiro, S. A., activation of chemical reactions by salts. II. Solution of marble, A., 870.
- activation of chemical reactions by salts. III. Solution of nickel, A., 870.
- Isgarishev, N. A., and Turkovskaja, A. V., activation of chemical reactions by salts. VII. Oxidation-reduction systems, A., 864.
- Ishibashi, M., quantitative analysis of phosphoric acid. VI. Determination of phosphoric acid in a phosphate fertiliser, B., 1042.
- Ishida, Y., Stark effect in the ultra-violet spectrum of neon, A., 970.
- helium spectrum in the presence of an electric field, A., 1327.
- Ishida, Y., and Fukushima, M., Stark effect of aluminium and carbon, A., 1487.
- Ishida, Y., and Tamura, T., combination series of helium, A., 969.
- Ishidate, M. See Tamura, K.
- Ishidō, H., combined photographic action of light and α -rays or mesothorium rays, A., 306.
- Ishihara, T., abnormal change in volume of the ternary system of bismuth, lead, and tin, A., 536.
- Ishii, R., Matsushima, H., and Taniuchi, Y., influence of insulin on a united synthetic process in the animal organism, A., 1069.
- Ishii, R., and Sakata, S., synergism between adrenaline and cocaine by the sugar mobilisation from the toad liver, A., 1069.
- action of calcium and potassium ions in sugar metabolism through adrenaline, A., 1069.
- Ishii, R., Sakata, S., and Taniuchi, Y., cocaine glycogenolysis and influence of atropine on the glycogen mobilisation by cocaine, A., 1062.
- Ishii, S. See Horiba, S.
- Ishii, T., Tenriuji yellow Celadon glaze, B., 1066.
- Kinuta blue Celadon glaze, B., 1066.
- Ishikawa, F., thermodynamic data on some metallic sulphates, A., 296.
- Ishikawa, F., and Watanabe, M., equilibrium in the reduction of silver chloride by hydrogen, A., 163.
- Ishikawa, I., viscosity formula for binary mixtures, the association degrees of constituents being taken into consideration. VI., A., 849.
- Ishikawa, K., paralysis- and convulsion-causing poisons in *Sinomenium acutum*, Rehd. and Wiels, A., 497.
- iodine content of the cerebrospinal fluid, A., 807.
- excretion of creatine and creatinine in the urine, A., 808.
- Ishikawa, M., chemical and bacterial inhibition of gas formation in bacterial cultures, A., 116.
- influence of iodide on bacterial decomposition of nitrogenous substances, A., 116.
- Ishikawa, S., effect of santonin on blood-sugar, A., 812.
- Ishikawa, S. See also Karrer, P.
- Ishikawa, T., viscosity formula for binary mixtures, taking into consideration association effects. IV. and V., A., 284, 680.
- nickel-aluminium bronze, B., 1072.
- Ishino, M., Tanaka, Shinsuke, and Tsuji, A., X-ray diffraction in organic liquids. I. Cyclic compounds. II. Chain compounds, A., 527.
- Ishiwara, R., coagulation of mastic sol, A., 692.
- Isles, F. W. See Standard Oil Development Co.
- Ismailov, N. A. See Kosakevitch, P. P.
- Isobe, H., and Zaidan Hojin Rikagaku Kenkyujo, dehydrating substance, (P.), B., 373.
- Isola-Ges.m.b.H., [fibrous, heat-insulating material [suitable also for acid-resistant filters], (P.), B., 268.
- Isom, E. W., Herthel, E. C., Pelzer, H. L., and Sinclair Refining Co., cracking of [hydrocarbon] oil, (P.), B., 180.
- Isom, E. W., and Sinclair Refining Co., cracking hydrocarbons, (P.), B., 854.
- cracking of hydrocarbon oils, (P.), B., 1141.
- Isom, E. W. See also Bell, J. E.
- Israilevie, E. See Carni, A.
- Issakova-Keo, M. M. See Pavlov, V. A.
- Issekutz, B. von, and Dirner, Z., pharmacology of gold compounds. II., A., 1315.
- Issekutz, B. von, and Leinzinger, M., pharmacology of gold compounds. I., A., 1315.
- Issekutz, B. von, and Méhes, I., pharmacology of gold compounds. III., A., 1315.
- Itallie, L. van, and Steenhauer, A. J., microchemical detection of barbituric acid derivatives, A., 1460.
- Itallie, T. B. van. See Katz, J. R.
- Itano, A., tables of p_H values corresponding to *E.M.F.* measurements with hydroquinhydrone, quinhydrone, hydrogen, and antimony electrodes against 0.1N- and saturated calomel and quinhydrone standard electrodes, A., 422.
- antimony electrode for determination of hydrogen-ion concentration. I. Standardisation of an antimony electrode in buffer solutions and calculation of p_H , A., 422.
- Itano, A., and Arakawa, S., Biilmann's quinhydrone electrode. IV. Comparative study of quinhydrone and hydroquinhydrone electrodes, A., 422.
- Bacillus thermofibrincolus*, n. sp. I., A., 643.
- Itkin, D. Y. See Yushkevich, N. F.
- Ito, K. See Matsumura, S.
- Ito, M., enzymic substance contained in koji made of rice in different degrees of its polishing, A., 384.
- Ito, T. See Yamagawa, M.
- Itoi, M., effect of various salts on the surface tension of sodium taurocholate solutions, A., 1515.
- Itomi, H., electrolytic reduction of 2-nitro-4'-hydroxyazobenzene, A., 337.
- electrolytic reduction of 4-keto-3-phenyl-3:4-dihydroquinazoline, A., 1297.
- Itterbeek, A. van. See Keesom, W. H.
- Ivančeva, E. G. See Pamfilov, A. V.
- Ivanenko, D. See Ambarzumian, V.
- Ivanov, A. K. See Karavaev, N. M.
- Ivanov, D., properties of mixed organomagnesium carbonates, A., 61.
- Ivanov, F. Z. See Petrov, A. D.
- Ivanov, I. A. See Kurtenacker, A.
- Ivanov, I. Z. See Ipatiev, V. N.
- Ivanov, K. N. See Plotnikov, V. A.
- Ivanov, N. N., Dodonova, E. V., and Tschastuchin, V. J., enzymes of cap-fungi, A., 1067.
- Ivanov, N. N., and Smirnova, M. I., importance of oxygen in the formation of urea in mushrooms, A., 382.
- Ivanov, P. T., chemical and petrographic examination of the therapeutic sludges taken from Lake Saki, A., 1015.
- Ivanov, S., biochemistry of plant fats, A., 967.
- solid vegetable oils, B., 1163.
- Ivanov, S., and Alissova, Z. P., vegetable oils of the Union of S.S.R. IV. Nature of oils of Palma in connexion with the climate of district of origin, B., 154.
- Ivanov, S., and Elakov, J. S., vegetable oils of the Union of S.S.R. V. Nature of fatty oils of *Cappariadaceae* in connexion with the climate of district of origin, B., 568.
- Ivanovski, N., and Sabolotnova, M., adsorption by erythrocytes. II. Adsorption of methylene-blue, A., 234.
- Iveković, H., constancy of chemical composition of Zagreb subsoil water, A., 187.
- selective fermentation of dextrose and laevulose by brewer's yeast, A., 374.
- Ivers, O. See Wolfes, O.
- Ivery, S. H., and Hydraulic-Press Brick Co., salt-glazing of bricks and other clay products, (P.), B., 190.
- Ives, C. Q., and Brown Co., means for testing the dryness of fibrous material, (P.), B., 504.

- Ivy, A. C. See Mortimer, B.
- Iwama, T. See Murakawa, K.
- Iwamoto, K. See Nomura, H.
- Iwamoto, Y., action of the silent discharge on oils, fats, and fatty acids. III. Influence of temperature, voltage, polar distance, and pressure of gaseous medium, A., 433.
- action of the silent discharge on saturated fatty acids, A., 451.
- action of the silent discharge on oils, fats, and fatty acids. II. Effects of gaseous media. I., B., 291.
- action of the silent discharge on oils, fats, and fatty acids. I. Deodorisation of cod-liver oil, B., 1117.
- Iwamoto, Y., and Kisegawa, M., bull-frog oil, A., 804.
- Iwanaga, Y. See Kawashima, S.
- Iwasaki, C., formation of Japanese gold, A., 569.
- Iwasaki, K., fixation of nitrogen by bacteria, A., 1622.
- Iwasaki, K. See also Meyerhof, O.
- Iwasaki, S., and Masuda, S., nephelometry of cellulose acetate solutions, A., 540.
- viscose. XXVIII. Effect of mixing different substances with viscose, B., 234.
- Iwasaki, S. See also Kita, G.
- Iwase, E., coagulation of von Weimarn's Auf sols. II., A., 1249.
- Iwata, M., occurrence of lysolectin in polished rice, A., 1324.
- Iwatsu, T. See Pincussen, L.
- Iwatsura, R., Morimoto, M., and Tamura, M., micro-determination of the total fat and lipin content of blood. I., A., 1463.
- Iyengar, A. V. P., spike disease of sandal (*Santalum album*, Linn.). X. Seasonal variations in healthy and diseased trees, A., 385.
- Iyer, M. P. V., temperature variation of viscosity of liquids, A., 1509.
- Izar, G., and Constantino, S., influence of lecithin on carbohydrate metabolism, A., 951.
- Izume, S., Yoshimaru, Y., and Komatsubara, I., experimental rickets. III. Isolation of ergosterol from brewer's yeast and activation of ergosterol by means of ultra-violet light, A., 1625.
- Izvoschikov, V. P., manipulation of tobacco, B., 120.
- J.
- Jaaks-Müncheburg, E. See Menz, H.
- Jablczyński, K., and Dembrowski, K., nitrates and the equilibrium law, A., 293.
- Jablczyński, K., and Emin, A., temperature coefficient of suspensions of the second order, A., 291.
- Jablczyński, K., and Kobryner, S., kinetics of formation of colloids, A., 290.
- Jablonski, L., the Luckhaus quick-tanning process, B., 159.
- Jaccard, P., variations of carbon dioxide in the neighbourhood of vegetation in the open air and in a closed space, A., 648.
- Jack, D., simple spectrum comparator, A., 1152.
- Jack, H. W., and Jagoe, R. B., rice storage experiments, B., 1128.
- Jack, J. A., [refractory materials for] refining industrial metals in the molten state, (P.), B., 1077*.
- Jackman, A. J. See Arensburg, F. L.
- Jackson, A. See Grocock, C. M.
- Jackson, C. V., spectrum of silicon hydride, A., 388.
- Jackson, D. A., hyperfine structure of the arc spectrum and the nuclear rotation of indium, A., 1075.
- Jackson, D. N. See McBain, J. W.
- Jackson, E. H., detection of benzene in varnishes, B., 156.
- Jackson, E. L., and Hudson, C. S., rotatory power and structure in the sugar group; the two crystalline lactones of *l*-rhamnonic acid, A., 744.
- Jackson, F. H. See Bailey, F.
- Jackson, H., jointing of aluminium by solder, (P.), B., 64.
- Jackson, I. K., Davies, W. C., and Jones, W. J., tertiary aryl-alkylphosphines. I., A., 1603.
- Jackson, J. W. See Nichols, M. S.
- Jackson, K. S., and Rienacker, G., solubility of the octahydrates of the rare-earth sulphates, A., 1107.
- Jackson, L. C., Stern-Gerlach experiment with active nitrogen, A., 271.
- Jackson, L. C., and Broadway, L. F., application of the Stern-Gerlach experiment to the study of active nitrogen, A., 969.
- Jackson, W. F., and Kistiakowsky, G. B., photochemical oxygen-carbon monoxide reaction, A., 1259.
- Jackson, W. W. See Náray-Szabó, S.
- Jacob, H., sodium salts used in conjunction with potassium salts as plant nutrient. VI. Summer and winter rape, kohlrabi, and horse beans, B., 877.
- Jacob, H. E., use of sulphur dioxide in shipping grapes, B., 638.
- Jacob, K. D., Hill, W. L., and Holmes, R. S., colloidal nature of some finely-divided natural phosphates, A., 1267.
- Jacob, K. D., Reynolds, D. S., and Hill, W. L., reduction of tricalcium phosphate by carbon: effect of silica and alumina on the reaction, B., 141.
- Jacob, K. D. See also Hill, W. L., and Reynolds, D. S.
- Jacobi, K. R. See Slotta, K. H.
- Jacobi Akt.-Ges., A., treatment of soap [during cooling], (P.), B., 778.
- Jacobs, A. F., [manufacture of] vulcanised fibre, (P.), B., 759.
- Jacobs, H. L., fertilisation of shade trees. II. Conifers, B., 1082.
- Jacobs, M. B., and King, C. V., dissociation of strong electrolytes. I. Optical rotation and the theory of complete dissociation, A., 859.
- dissociation of strong electrolytes. II. Two-phase equilibria; heats of neutralisation, A., 995.
- Jacobs, W. A., strophanthin. XVIII. *allo*Cymar and *allo*-strophanthidin; enzymic isomerisation of cymar and strophanthidin, A., 1413.
- Jacobs, W. A., and Fleck, E. E., partial dehydrogenation of α - and β -amyrin, A., 1292.
- saponins. V. Partial dehydrogenation of hederagenin, A., 1293.
- tigogenin, a digitalis saponin, A., 1414.
- Jacobs, W. A., and Gustus, E. L., digitalis glucosides. IV. Correlation of gitoxigenin with digitoxigenin, A., 749.
- structural correlation of gitoxigenin with digitoxigenin, A., 1187.
- digitalis glucosides. V. Oxidation and isomerisation of gitoxigenin, A., 1413.
- Jacobs, W. A., and Scott, A. B., hydrogenation of unsaturated lactones to deoxy-acids, A., 1162.
- Jacobsen, A., employment of the Seitz filter for pharmaceutical solutions, B., 684.
- Jacobsen, A. See also Schou, S. A.
- Jacobsen, D. L., and Koppers Co., gas purification, (P.), B., 700.
- Jacobsen, J. C., capture of electrons by swift α -particles, A., 1338.
- photographic counting of α -particles, A., 1338.
- Jacobsen, J. N., and Pfaudler Co., heat-transfer apparatus, (P.), B., 268.
- Jacobsen, K. A., and Standard Brands, Inc., manufacture of yeast, (P.), B., 437*.
- Jacobsohn, K. P., alleged formation of optically active lactic acids from carbohydrates under the influence of sunlight, A., 193.
- determination of sugar by means of *B. coli*, A., 960.
- Jacobson, C. A., and Haight, J. W., determination of carbon dioxide in carbonates, A., 1145.
- Jacobus, D. A. See Beattie, J. A.
- Jacoby, A. H. See Chapin, E. S.
- Jacoby, H., effect of diet on the bile pigment of the blood, A., 1462.
- Jacoby, M., action of fluorine and of iodine on urease, A., 113.
- Jacoby, R. See Gen. Electric Co.
- Jacques, A. G., and Osterhout, W. J. V., kinetics of penetration. II. Penetration of carbon dioxide into *Valonia*, A., 1325.
- Jacques, A. G. See also Blinks, L. R.
- Jacyno. See Jazyna.
- Jadhav, G. V., condensation of ethyl acetoacetate with aromatic amines. I., A., 1426.
- Jadoul, A., [poking device for] gas producers, (P.), B., 938.
- Jäckh, I. See Wedekind, E.
- Jaedel, W., and Maschinenbauanstalt Humboldt, tube mill, (P.), B., 1136*.
- Jaeger, A., and Kohorn & Co., O., manufacture of high-grade viscose products, (P.), B., 985*.
- Jaeger, A. See also Selden Co.
- Jaeger, A. O., catalytic processes for utilisation of coal-tar crudes, B., 272.
- Jaeger, A. O., Selden Research & Engineering Corporation, and Bertsch, J. A., preparation of vanadic acid, (P.), B., 765*.
- Jaeger, A. O. See also Selden Co.
- Jaeger, F. M., tetrahedral-pyramidal configuration of methane derivatives, A., 280.
- molecular configuration and optical activity, A., 980.
- dimorphism of gallium acetylacetonate, A., 893.
- Jaeger, F. M., and Rosenbohm, E., exact measurement of the specific heats of solid substances at high temperatures. III. The specific heats of palladium and of tungsten, A., 1103.

- Jaeger, P. See Steinkopf, W.
- Jänecke, E., reciprocal salt pair $2\text{NH}_4\text{NO}_3 + \text{K}_2\text{SO}_4 \rightleftharpoons 2\text{KNO}_3 + (\text{NH}_4)_2\text{SO}_4$, and its aqueous solutions, A., 294.
system $\text{NaOH}-\text{NaNO}_3-\text{H}_2\text{O}$, A., 701.
- Jänecke, E., and Rahlfs, E., system $\text{NH}_4\text{NO}_3-\text{H}_2\text{O}$, A., 1373.
system $\text{H}_2\text{O}-\text{CO}_2-\text{NH}_3$. II., A., 1373.
- Jänecke, L. See Kögl, F.
- Järvinen, K. K., mixture formulæ, B., 267.
density of fats, fatty acids, and mineral oils, B., 291.
- Jaffé, G., columnar ionisation in gases at higher pressures, A., 127.
methods of the kinetic theory of gases, A., 1250.
- Jagoe, R. B. See Jack, H. W.
- Jahn, A. R., manufacture of [bleached] glues, gelatins, etc., (P.), B., 385.
[pressure] filtration of liquids and similar operations involving the contact of liquid and solid material, (P.), B., 1096.
- Jahn, E. C. See Searth, G. W.
- Jahr, H., [detection of fruit wines in grape wines by means of the] conversion of dibenzylidenesorbitol into sorbitol hexaacetate, B., 787.
- Jahr, K. F., Schneider, F. A., and Winkel, A., examination of two technical X-ray tubes for purity of spectra, A., 278.
- Jahrstorfer, M. See I. G. Farbenind. A.-G.
- Jahzadnick, J., Bohr's theory of the hydrogen spectral series, A., 387.
- Jain, B. D. See Bhatnagar, S. S.
- Jakimanskij, W. See Fotjew, S.
- Jakimov, G. See Minaev, V. I.
- Jakimov, P., and Tolski, P., birch bark [*Betula alba* and *B. pubescens*] as a tanning material, B., 874.
- Jakob, J., constitution of mica. VIII., A., 1016.
- Jakob, J., and Otto & Sons, Inc., A. T., production of artificial stone, (P.), B., 614*.
- Jakób, W. F., and Kozłowski, W., reduction by hydrazine of sexavalent molybdenum derivatives, A., 308.
- Jakób, W. F., and Trzebiatowski, W., potentiometric study of equilibria in solutions containing quinque- and sexa-valent molybdenum, A., 297.
- Jakobsonówna, R. See Weil, S.
- Jakova-Merturi, G., and Carbonisation Société Générale d'Exploitation des Carbones, manufacture of metallurgical fuel, (P.), B., 1159*.
- Jakova-Merturi, G., and Poggioli, J. A., softening and rendering impervious materials composed of casein treated with formaldehyde or of cellulose derivatives, (P.), B., 158.
- Jakova-Merturi, G. See also De Korff, G.
- Jakovlev, K. P., absorption of canal rays by solid bodies, A., 1083.
separation of isotopes, A., 1337.
- Jakubowitz, M. E. See Britzke, E. V.
- Jakubson, S. I. See Plotnikov, V. A.
- Jaloustre. See Aversenq.
- Jalowetz, E., boiling of brewery wort, B., 78.
improvement of brewing waters, (P.), B., 583*.
- Jalowetz, E., and Hamburg, M., production of malt enzymes, diastases, etc., as by-products in brewing, (P.), B., 481.
- Jalowzer, B. J. See Stiasny, E. G.
- Jambuserwala, G. B., and Mason, F. A., coupling of diazonium compounds with 2-methoxy-3-naphthoic acid, A., 1573.
- James, H., automatic pipette filler, A., 567.
- James, J. H., and Byrnes, C. P., odorised [coal] gas production, (P.), B., 132.
treatment of hydrocarbons, including hydrocarbon derivatives, (P.), B., 1101.
- James, R. G. See Angell, F. G., and Dunlop Rubber Co., Ltd.
- James, W. O., physiological importance of the mineral elements in plants. I. Relation of potassium to the properties and functions of the leaf, A., 508.
- James, W. S. See Stratford, C. W.
- Jamieson, G. S., Baughman, W. F., and Gertler, S. I., grape-fruit seed oil, B., 621.
- Jamieson, G. S., and McKinney, R. S., analytical methods for cottonseed, B., 956.
- Jamieson, G. S. See also Baughman, W. F., and Hann, R. M.
- Jamison, C. A. See Battey, W. A.
- Jamora, E. B. See King, F. H.
- Janczak, M., analogy between the action of esters of inorganic acids and of the acids themselves, A., 577.
- Jandebour, W. See Schmidt, Erich.
- Jander, G., conductivity titration with visual observation: conductometric determination of sulphate in boiling aqueous solution, A., 51.
- Jander, G., and Banthien, H., [pre-filter for] preheaters for brine solutions, (P.), B., 187.
- Jander, G., and Busch, F., extraction of rubidium and caesium from carnallite. II., A., 435.
- Jander, G., and Heukeshoven, W., amphoteric hydrated oxides, their aqueous solutions and crystalline compounds. IX. Relations of metatungstates to para- and mono-tungstates in solution, A., 438.
- Jander, G., Pfundt, O., and Schorstein, H., conductometric titration with visual determination of the end-point in boiling solutions, A., 1142.
- Jander, G., and Winkel, A., utilisation of diffusion coefficients for the determination of mol. wt., particularly of amphoteric hydroxides in aqueous solution, A., 1112.
amphoteric hydrated oxides, their aqueous solutions and crystalline compounds. X. Hydrolysis and aggregation products in aqueous ferric salt solutions, A., 1390.
- Jander, G. See also Rother, E.
- Jander, W., reactions in the solid state at high temperatures. VI. Acid exchange with some tungstates and molybdates, A., 1006.
internal structure of solid salts of oxy-acids at high temperatures. I. Theoretical foundations. II. Tungstates and molybdates of bivalent metals, A., 1351.
diffusion phenomena in solid molybdates and tungstates, A., 1361.
- Jander, W., and Stamm, W., reactions in the solid state at high temperatures. V. Effect of gases on reactions in the solid state, A., 873.
- Janeček, G., sub-soil water of the Zagreb district, A., 187.
- Janek, A., and Schmidt, A., coagulation of colloids by emulsions formed by temperature changes. I., A., 540.
transference of disperse phase from one dispersion medium to another by de-emulsification. I. The phenomenon and influence of the Hofmeister ion series, A., 1368.
- Janes, P., [centrifugal] fluid-mixing device, (P.), B., 747*.
- Janicssek, M., chlorophyll from the leaves of various plants, A., 824.
copper content of drugs arising from sprays, B., 348.
- Jankanskis, A. See Bruzs, B.
- Janke, A., and Holzer, H., nitrogen circulation. II. Proteolytic power of micro-organisms, A., 1621.
- Janke, A., and Lacroix, H., iodine value and degree of luminescence of fermentation vinegar and its content of the products of bacterial metabolism, B., 636.
- Jankovski, I. D. See Briuchonenko, S. S.
- Janot, M. M., and Favre, C., use of the bismuth-iodine reagent in the evaluation of galenical hemlock preparations, B., 882.
- Jansen, (Miss) A. F. J. See Keesom, W. H.
- Janser, A. See Friedlander, H.
- Jánsky, A. See Tomiček, O.
- Jansma, F. See Webster, J. E.
- Janssen, E. See Auwers, K. von.
- Janssen, G., and Bartholomew, R. P., influence of the potash concentration in the culture medium on production of carbohydrates in plants, B., 387.
- Janssen, H. J. J., and Naamlouze Vennootschap Nederlandsche Kunstzijdefabriek, manufacture of dyed artificial silk, (P.), B., 101*.
- Janssens. See Carrière, E.
- Jantsch, G., thermal decomposition of rare earth [tri]-halides, A., 437.
- Jantsch, G., Grubitsch, H., Hoffmann, F., and Alber, H., halides of the rare earths. III. Iodides of the elements of the cerite earths and redetermination of the m. p. of the chlorides, A., 143.
- Jantzen, E., and Schmalfuss, H., rapid evaporation, A., 1152.
- Jantzon, H., and Kirsch, W., yields of crude and assimilable nutrient by double and treble mowing of meadows after various fertiliser treatments, B., 962.
- Janz, H. See I. G. Farbenind. A.-G.
- Jaqua, J. B., [mineral] oil cracking process, (P.), B., 701.
- Jardin, L. C. P., apparatus for the rapid and homogeneous transformation of alkali-cellulose into viscose, (P.), B., 414.
- Jardine, J. L., and Nelson, I. T., [rotary] apparatus for preparing bamboo and kindred material for pulp extraction, (P.), B., 185.
- Jaroslavzev, A. N. See Alexeev, A. I.
- Jarsch, H. See Gebauer-Fülneegg, E.

- Jarussov, S. S. See Askinasi, D. L.
- Jasiński, M., is Barger's micro-method [for the determination of osmotic pressure] based on the principle of isothermic distillation? A., 31.
- Jastrzebski, D., preservation of food [e.g., meat], (P.), B., 119.
- Jauncey, G. E. M. See Hughes, A. L.
- Jausseran, G. See Buisson, H.
- Javillier, M., carotene and animal growth, A., 1070, 1221.
magnesium and life; magnesium as a fertiliser and as a food, A., 1224.
- Javillier, M., and Emerique, (Mlle.) L., vitamin activity of carotene, A., 647.
purification of carotene and the vitamin activity of purified carotene, A., 1221.
- Javillier, M. See also Vaudin, L.
- Javitch, G., filter for liquids under pressure, (P.), B., 846*.
- Javitch, G., and Javitch, S., filters for liquids under pressure, (P.), B., 126.
- Javitch, S. See Javitch, G.
- Jaworska, J., ammonia and purines in heat-coagulation of frog's muscle, A., 945.
- Jazyna, W., anomaly of water. II., A., 25.
internal potential energy and coefficient of expansion of water. III., A., 25.
thermodynamical calculation of the compressibility of water, A., 145.
thermodynamic theory of heat conduction, A., 535.
random nature of molecular motion. II., A., 1101.
- Jean, reduction of mercury salts with formaldehyde and with hydrogen peroxide, A., 1148.
reduction of mercury salts with stannous chloride, A., 1148.
- Jeandidier, M., enamelling of glass articles, (P.), B., 768.
- Jeavons, E. E., and Pinnock, H. T., steel [gas] mains and corrosion, B., 865.
- Jebens, R. H. See Bartow, E.
- Jeddloh, B. zu. See Adler, A.
- Jeffers, K., Best's method of staining glycogen, A., 1203.
- Jefferson Construction & Oil Treating Co. See Coggeshall, G. W.
- Jeffery, F. H., method of finding molecular constitution of certain liquid and solid intermetallic solutions, A., 406.
molecular constitution of certain intermetallic solid solutions at temperatures below that of the eutectic examined thermodynamically, A., 1360.
molecular constitution of the solid solution of tin in lead at temperatures below that of the eutectic, A., 1361.
- Jeffray, J., [vacuum apparatus for manufacture of splinterless] sheet glass, (P.), B., 714.
- Jeffrey, R. N., and Cruess, W. V., effect of hydrogen-ion concentration in the dyeing of cherries, B., 119.
- Jeffrey Manufacturing Co., pulverising machines, (P.), B., 798.
- Jeffrey Manufacturing Co. See also Armstrong, W. J., and Liggett, W. K.
- Jelinek, E., present relation between the sugar content of the beet and the rendement, B., 75.
- Jelley, E. E., colour reaction between naphthol-yellow and hyposulphites, A., 181.
refractometer, A., 314.
- Jelley, E. E., and Clark, W., test for thiosulphates, B., 55.
- Jellinek, K., and Golubovskii, A., vapour pressures of molten mixtures of lead chloride and lead bromide at high temperatures, A., 849.
- Jellinek, K., and Koop, R., heterogeneous equilibria of metal halides with hydrogen and with hydrogen chloride, A., 294.
- Jenckel, E. See Tammann, G.
- Jendrassik, A., and Keményfi, G., vitasterol-D. II. An active crystalline substance from the product of irradiation of ergosterol, A., 256.
- Jendrassik, L., and Krigl, K., biochemical gravimetric methods. I. Determination of protein fractions of body-fluids, A., 1072.
- Jendrassik, L., and Will, G., physiological assay of belladonna extracts and other drugs with atropine-like action, A., 1471.
- Jenke, M., Laser, R., and Linde, R., nuclein metabolism. XXIII. Effect of muscular activity on endogenous uric acid excretion, A., 1060.
- Jenke, M., and Steinberg, F., detection of bile acids in blood, A., 1462.
- Jenkins, A. F., gas and air cleaner, (P.), B., 695.
- Jenkins, C. H. M., and Gayler, (Miss) M. L. V., optical determination of high metallurgical temperatures; m. p. of iron, A., 1356.
- Jenkins, C. H. M. See also Rosenhain, W.
- Jenkins, F. A., absorption spectrum of carbon disulphide in the near ultra-violet, A., 518.
fine structure of the beryllium fluoride bands, A., 520.
- Jenkins, F. A. See also Harvey, A., and Rosenthal, J. E.
- Jenkins, J. D., new application of the Abbé refractometer in the analysis of lacquer thinners, B., 383.
- Jenkins, R. G. C. See Askew, F. A., and Bourdillon, R. B.
- Jenkins, R. L., McCullough, R., and Booth, C. F., syntheses in the diphenyl series, B., 182.
- Jenkins, R. R. See Butler, O.
- Jenkins, S. H., determination of cellulose in straws, A., 1483.
- Jenkins, W. J., and Bennett, H. B., sorption experiments with cellulose nitrate. I. Sorption of vapours by cellulose nitrate, A., 1514.
- Jenkins, W. J. See also Imperial Chem. Industries, Ltd.
- Jenkins Petroleum Process Co., treatment of heavier hydrocarbons, (P.), B., 93, 312.
treatment of heavy hydrocarbon oils, (P.), B., 133.
transformation of petroleum hydrocarbons into gasoline, (P.), B., 806.
- Jenks, H. N., engineering studies of municipal zeolite water-softening, B., 534.
- Jenks, H. N. See also Levine, M.
- Jenks, L. E., plasticity of clay, B., 13.
- Jeness, J. R., effect of temperature on the fluorescence of some organic solutions, A., 16.
- Jennings, A. R., cleansing composition [for fabrics], (P.), B., 815.
- Jennings, F. C. See Dunlop Rubber Co., Ltd.
- Jennings, W. F., carbonic anhydride (CO₂) [refrigerating] compressors, (P.), B., 696.
- Jenny, A., manufacture of caoutchouc-coated metal body, (P.), B., 113.
- Jenny, H., equation of state for soil-nitrogen, A., 734.
nitrogen content of the soil as related to the precipitation-evaporation ratio, B., 576.
- Jensen, A., apparatus for treating liquids, (P.), B., 269.
- Jensen, E. C. See Trivelli, A. P. H.
- Jensen, H., and Chen, K. K., toad poisons. II. Ch'an Su, the dried venom of the Chinese toad. III. Secretion of the tropical toad, *Bufo marinus*, A., 1205.
- Jensen, H., and De Lawder, A., crystalline insulin. IX. Adsorption of insulin on charcoal, A., 1221.
crystalline insulin. XII., A., 1320.
crystalline insulin; activation of insulin, A., 1480.
- Jensen, H. L., *Actinomyces* in Danish soils, B., 875.
decomposition of keratin by soil micro-organisms, B., 877.
- Jensen, O. F., movement of fertiliser salts in the soil, B., 295.
- Jensen, S. T., ammonia fixation and nitrogen losses in manuring with liquid manure, B., 923.
- Jensen, W. See Andreassen, A. H. M.
- Jenson, J. B., treatment of petrogen-containing substances, (P.), B., 48.
- Jentzsch, F., and Nähring, E., reflexion of X-rays, A., 278.
- Jeppesen, C. R. See Birge, R. T., and Hyman, H. H.
- Jeremiassen, F., and Aktieselskapet Krystal, separately recovering soluble substances in a coarse granular condition, (P.), B., 400*.
- Jermitz, fertiliser trials with sugar cane in Natal, B., 258.
- Jermolenko, N., colloid solubility. I., A., 158.
- Jermstad, A., oil from cascara sagrada, B., 740.
- Jermstad, A. See also Ender, F.
- Jerred, C. B. See Newey, J. G.
- Jersey Cereal Co., and Luke, C. E., [puffed] cereal foods, (P.), B., 531.
- Jervell, O., blood-lactic acid in nephritis, A., 1059.
- Jessel, R. See Lang, H. R.
- Jessen, V. See Bahr, H. A.
- Jessen, W., and Lesch, W., influence of silicic acid, peat, and humus on the solubility and intake of phosphates [by plants], B., 735.
- Jessen, W. See also Lemmermann, O.
- Jessien, W. See Arens, H.
- Jessop, G. See Lowry, T. M.
- Jessop, J. A. See Ingold, C. K.
- Jesty, L. C. See Gen. Electric Co.
- Jette, E. See King, C. V.
- Jewel, P. W. See Scott, W. W.
- Jeziarski, T. W., action of sulphur on ketones, A., 1184.
- Jilek, A., and Kota, J., gravimetric determination of beryllium by means of hydrazine carbonate, A., 1393.

- Jilek, A., and Lukas, J., determination of aluminium by hydrazine carbonate, A., 444, 1547.
gravimetric determination of tungsten in the presence of vanadium, A., 565.
electrolytic determination of thallium as thallic oxide, A., 1147.
- Jilek, A. See also Lukas, J.
- Jillings, C. S., manufacture of [sand-faced] building bricks and similar clay or products, (P.), B., 949.
- Jimenez, D. L. de A. See Yoldi, F.
- Jinno, A., manufacture of hair dyes, (P.), B., 317.
- Jirgensons, B., stabilising effect of polar molecules, A., 855.
- Jirgensons, B. See also Karrer, P., and Lutz, O.
- Jiřistě, J. See Quadrat, O.
- Jirotká, B., and Sprenger Patentverwertung Jirotká m.b.H., O., production of dark oxide coatings on magnesium and its alloys, (P.), B., 868.
- Jirotká, B. See also Sprenger Patentverwertung Jirotká m.b.H.
- Jirovec, O., and Kocian, V., protective action of "Bayer 205" on proteins, A., 954.
- Jirsa, F., oxidation of alkali plumbite to plumbate by sinusoidal alternating current. III, A., 45.
- Joachim, A. W. R., valuation of Ceylon citronella oil, B., 166.
Ceylon citronella oil, B., 394.
effect of *Indigofera endecaphylla* on the nitrogen and organic matter contents and the mechanical constitution of tea soils at Peradeniya, B., 581.
drainage and leaching trials at Peradeniya, 1927-30, B., 920.
- Joachim, A. W. R., and Kandiah, S., effect of green manures and cover crops on soil moisture, B., 634.
- Joachim, A. W. R., and Pandittesekere, D. G., relation of green manures to the carbon and nitrogen contents and reaction of soils at Peradeniya, B., 632.
- Joassart, N., and Leclerc, E., rapid electrotitrimetric determination of zinc in a mineral, A., 1011.
application of the potentiometer to the determination of chlorides in zinc dross, B., 148.
- Job, A., and Champetier, G., fixation of acetylene by magnesium phenyl bromide in presence of ferric chloride, A., 191.
- Job, P. See Bernard, R.
- Job, R. See Mondain-Monval, P.
- Job, W., and American Lurgi Corporation, smelting of [zinc] ore and other zinc-containing materials, (P.), B., 379*.
blast furnace for reduction and recovery of volatilisable metals as oxides and their operation, (P.), B., 671*.
- Jobling & Co., Ltd., J. A., and Hockenyo, G. L., treatment of glassware [to prevent "bumping"], (P.), B., 510.
- Jodeck, P., and Allgemeine Gesellschaft für Chemische Industrie m.b.H., apparatus for continuously expelling the sulphur dioxide from mixtures of sulphur dioxide and oil, (P.), B., 48*.
- Jodeck, P. See also Cattaneo, G.
- Jodidi, S. L., isolation and purification of the alcohol-soluble protein (prolamin) in English ryegrass (*Lolium perenne*), A., 826.
- Joenes, M. See Parjono.
- Jørgensen, G., detection of artificially bleached flours, B., 79.
- Joffe, A., manufacture of electric insulations, high-tension storage batteries, and condensers, (P.), B., 566.
- Joffe, D. G. See Rogatkin, N. N.
- Joffe, I. S., and Metrikina, R. M., structure of aniline-black. I. Interaction of emeraldine and nigraniline with amines. II. Interaction of nigraniline with aniline, A., 1599.
- Joffe, J. S., and Lee, L. L., soil profile studies. II. Methods used in the profile survey of New Jersey soils, B., 160.
- Jog, D. S., new bands in the molecular spectrum of hydrogen, A., 649.
- Joglekar, R. B., and Watson, H. E., physical properties of pure triglycerides, A., 1555.
- Johann, C. J., [combined charging and discharging fixture for] compressed-gas containers, (P.), B., 1137.
- Johannsen, F., and Krupp Grusonwerk Akt.-Ges., F., working up complex ores and metallurgical products, (P.), B., 722*.
recovery of volatilisable metals [zinc, lead, bismuth, antimony, etc.] as oxides; treatment of ores, metallurgical products, slags, etc., (P.), B., 914.
- Johannsson, P., purification of boiler feed water, (P.), B., 884.
- Johansson, C. H., system copper-zinc, A., 680.
- Johansson, C. H., and Linde, J. O., crystal structure, electrical resistance, thermo-electric force, conductivity for heat, magnetic susceptibility, hardness, and ageing phenomena of the system Au-Pt, in combination with phase-rule diagram, A., 1102.
- Johansson, C. H., and Linde, J. O., crystal structure, electrical conductivity, thermo-electric force, and compensation phenomena of the system Ag-Pt in relation to the phase-rule diagram, A., 1510.
- Johansson, C. H. See also Borelius, G.
- Johansson, H., anthophyllite, grammatite, and cummingtonite, A., 1352.
- Johansson, N., rhythmic variations in the activity of soil micro-organisms, B., 577.
- Johlin, J. M., interfacial adsorption as a function of the concentration of colloidal solutions, A., 152.
isoelectric point of gelatin in relation to minimum physical properties of gelatin, A., 693.
influence of p_H and concentration on surface tension of gelatin solutions, A., 1118.
- John, F. See Clar, E.
- John, H., quinoline derivatives. XII. 4-Bromo-2-phenylquinoline, A., 925.
- John, H. [with Andraschko, E.], quinoline derivatives. VII. Quinic acid, A., 1595.
- John, R., and Arjon Chemical Co., fuel for internal-combustion engines, (P.), B., 854.
- Johner, H. See Staudinger, H.
- Johner, W. See Cabrera, B.
- Johns, C. K., speed of germicidal action of chlorine compounds on bacteria commonly occurring in milk, B., 683.
- Johns, I. B., and Hixon, R. M., electron-sharing ability of organic radicals; concentration cells using organo-mercuric iodides, A., 1526.
- Johns, I. B., Peterson, W. D., and Hixon, R. M., organo-mercuric nitrates; method of analysis for mercury applicable to dilute solutions, A., 1171.
electron-sharing ability of organic radicals; conductivity of organo-mercuric nitrates and chlorides, A., 1525.
- Johnsen, A., β -ammonium chlorido and related crystal forms, A., 139.
- Johnsen, B., and Hammermill Paper Co., chemical pulping process, (P.), B., 320.
- Johnson, A. H., and Green, J. R., modified methyl-red and sodium alizarinsulphonate indicators, A., 560.
wheat and flour studies. XVI. Effect of yeast fermentation on viscosity of flour-water suspensions, B., 683.
- Johnson, A. H. See also Hangaard, G., and Whitecomb, W. O.
- Johnson, A. J. M., M-series absorption spectra of metallic platinum and gold, A., 3.
- Johnson, B. L., [flotation] concentration of ores, (P.), B., 1114.
- Johnson, C. H. See Thurber, F. H.
- Johnson, C. R., carbon black. II. Role of oxygen, B., 88.
- Johnson, C. R. See also Scott, A. F.
- Johnson, E., fertiliser from calcium cyanamide, (P.), B., 342.
- Johnson, E. B. See Daynes, H. A.
- Johnson, E. I., and Parlington, J. R., preparation of anhydrous oxalic acid, A., 1021.
- Johnson, F. M. G. See Chipman, H. R.
- Johnson, F. R., art of separating [discrete particles] and apparatus therefor, (P.), B., 491.
- Johnson, Francis R., and Robertson, A., natural glucosides. I. Constitution of phloridzin, A., 327.
- Johnson, H. J. See Clemo, G. R.
- Johnson, H. R. See Pitts, H. C.
- Johnson, H. W. See Leach, J. G.
- Johnson, J., and Turbo-Mixer Corporation, mixer, (P.), B., 1008.
- Johnson, J. D. A. See Elson, L. A., and Gibson, C. S.
- Johnson, J. P., firing of tiles, (P.), B., 326.
- Johnson, J. R. See Audrieth, L. F., Gibbs, R. C., Runde, M. M., and Shepard, A. F.
- Johnson, J. W. H., removal and determination of nitrites in sewage effluents and waters, B., 796, 1170.
- Johnson, J. Y. See I. G. Farbenind. A.-G.
- Johnson, K. A., and Yancey, H. F., Marshall-Bird test for determining the agglutinating value of coal, B., 1052.
- Johnson, L. B. See Stockbarger, D. C.
- Johnson, M. See Mallon, M. C.
- Johnson, M. C., method of calculating the numerical equation of state for helium below 6° Abs., and of determining the relative importance of gas degeneracy and inter-atomic forces, A., 678.

- Johnson, *M. C.*, exchange of energy between gas, solid, and adsorbed layer in a vacuum. I. Method of detecting variations in the thermal efficiency of molecular collisions. II. Effect of a deposited unimolecular layer on the efficiency of molecular collisions, A., 1084.
effect of photosensitized mercury vapour on the walls of silica vacuum tubes, A., 1385.
- Johnson, *M. W.*, and Thompson, *T. G.*, sea-water at Puget Sound Biological Station from September 1927 to September 1928, A., 731.
- Johnson, *O. H.* See Griesheimer, *E. M.*
- Johnson, *R. C.*, bands of the carbon molecule, A., 124.
- Johnson, *T.* See Häglund, *B.*
- Johnson, *T. B.*, pyrimidines. CXVI. Improved technique for the syntheses of *N*-alkyl derivatives of thymine, A., 1447.
chemistry of bacteria and the development of a practical technique for the chemical analysis of cells, A., 1621.
- Johnson, *T. B.*, and Chi, *Y. F.*, pyrimidines. CX. Condensation of Claisen's ethyl ethoxymethylenemalonate with ψ -ethylthiocarbamide, A., 352.
pyrimidines. CXII. Synthesis of heterocyclic compounds containing condensed pyrimidine rings, A., 481.
pyrimidines. CXIV. Rearrangement of ethyl 2-ethylthiol-6-thiocyanopyrimidine-5-carboxylate into its thiocarbimide modification, A., 789.
- Johnson, *T. B.*, and Winthrop Chemical Co., Inc., manufacture of [pyro]catechol [4-(3:4)-dihydroxyphenyl] thiazoles, (P.), B., 1091.
- Johnson, *T. B.* See also Bass, *S. L.*, Harris, *M.*, Hawley, *T. G.*, jun., Hendry, *W.*, Herbst, *R. M.*, Hilbert, *G. E.*, Hinegardner, *W. S.*, Law, *G. H.*, Renfrew, *A. G.*, Shelton, *E. M.*, and Suter, *C. M.*
- Johnson, *T. H.*, reflexion of hydrogen atoms from crystals: intensity measurements of the specularly reflected beam, A., 514.
reflexion of hydrogen atoms from crystals: velocity selection in the specular beam, A., 514.
reflexion of hydrogen atoms from lithium fluoride, A., 1232.
- Johnson, *T. L.* See Sherwood, *N. P.*
- Johnson, *W. A.*, alloy steels for locomotive construction, B., 615.
- Johnson, *W. C.* See Hoffmann, *H.*, jun.
- Johnson, *Warren C.*, and Meyer, *A. W.*, vapour pressure of solutions of potassium in liquid ammonia, A., 147.
- Johnson, *Warren C.*, and Parsons, *J. B.*, gallium tribromide and tri-iodide, A., 874.
- Johnson, *Warren C.*, and Warren, *B.*, sulphides of gallium, A., 1138.
- Johnson & Johnson, surgical pads, etc., (P.), B., 1046.
- Johnson, Matthey & Co., Ltd. See Powell, *A. R.*
- Johnston, *A.* See Lloyd, (*Miss*) *B.*
- Johnston, *A. C.*, and Hercules Powder Co., production of alkyl esters of abietic acid, (P.), B., 431*.
- Johnston, *A. C.* See also Hercules Powder Co.
- Johnston, *C. G.*, and Ball, *E. G.*, variations in inorganic constituents of pancreatic juice during constant drainage of the pancreatic ducts, A., 805.
- Johnston, *C. G.*, and Wilson, *D. W.*, effect of hæmorrhage on acid-base equilibrium of blood, A., 490.
- Johnston, *H. L.*, and Giauque, *W. F.*, heat capacity of nitric oxide from 14° Abs. to the b. p. and the heat of vaporisation; vapour pressures of solid and liquid phases; entropy from spectroscopic data, A., 24.
- Johnston, *H. L.* See also Giauque, *W. F.*
- Johnston, *J.*, jun. See Martin, *A.*
- Johnston, *J. D.* See Traill, *R. J.*
- Johnston, *N.*, and Howell, *L. G.*, sedimentation equilibria of colloidal particles, A., 411.
- Johnston, *W.* See Acetex Safety Glass, Ltd.
- Johnstone, *H. F.*, electrical determination of the dew point of fluo gases, B., 1007.
- Johnstone, *H. F.* See also Pearce, *J. N.*
- Johnstone, *J. H. L.*, and Williams, *J. W.*, variation of dielectric constant with frequency, A., 275.
- Jois, *H. S.*, and Manjunath, *B. L.*, chemical examination of the seeds of *Cassia tora*, Linn. I., A., 1483.
- Joliot, *F.*, electrochemical properties of polonium, A., 165.
electrical properties and structures of metallic films obtained by thermal and cathodic sputtering, A., 531.
electrochemical study of the radioactive elements, A., 713.
determination of the period of radium-C'; experiments with thorium-C', A., 1086.
- Joliot, *F.*, and Curie, (*Mme.*) *I.*, radiations associated with the emission of α -rays from polonium, A., 975.
- Joliot, *F.* See also Curie, (*Mme.*) *I.*
- Jolland, *I.*, conductivity of solid salts at high temperatures, A., 17.
- Jolles, *Z.*, and Krugliakoff, *J.*, diazo-hydrates, azoxy-compounds, and nitrones, A., 767.
- Jolles, *Z.* See also Angeli, *A.*
- Jona, *B.* See Mascarelli, *L.*
- Jonas, *K. G.*, determination of moisture in pulp and paper, B., 899.
- Jones, *A. B.*, and Industrial Associates, Inc., obtaining solids from liquids, (P.), B., 1008.
- Jones, *A. E.*, construction of light-sensitive [selenium] cells, (P.), B., 673.
- Jones, *A. O.*, purification of mercury, A., 1537.
- Jones, *B.*, precipitation of small amounts of lead as chromate and their colorimetric determination, A., 881.
determination of small amounts of nickel in steel, B., 61.
- Jones, *B.* See also Haigh, *B. P.*
- Jones, *Brynmor.* See Bradfield, *A. E.*
- Jones, *C. E.* See Gen. Electric Co.
- Jones, *C. L.* See Arensburg, *F. L.*
- Jones, *C. R.* See Sherer, *R.*
- Jones, *D. B.*, and Csonka, *F. A.*, alcohol-soluble proteins of varieties of *Holcus sorghum*, A., 1323.
- Jones, *D. B.*, and Horn, *M. J.*, properties of arachin and conarachin and the proportionate occurrence of these proteins in the peanut, A., 826.
- Jones, *D. B.* See also Csonka, *F. A.*, Phillips, *M.*, and Sullivan, *M. X.*
- Jones, *D. C.*, and Amstell, *S.*, critical solution temperature of the system methyl alcohol-cyclohexane as a means of detecting and determining water in methyl alcohol, A., 1052.
- Jones, *D. C.*, and Outridge, *L.*, adsorption by silicic acid gel in the system *n*-butyl alcohol-benzene, A., 1109.
- Jones, *D. D.*, and Nelson, *E. M.*, vitamin content of ethylene-treated and untreated tomatoes, B., 927.
- Jones, *D. H.*, and Garrard, *E. H.*, early versus late ploughing of sweet clover for green manure, B., 633.
- Jones, *E. C. S.*, and Kenner, *J.*, action of benzenediazonium chloride on β -nitroethyl alcohol and its derivatives, A., 906.
- Jones, (*Miss*) *E. E.* See Hilditch, *T. P.*
- Jones, *E. J.* See Emmett, *P. H.*
- Jones, *E. O.* See Christie, *K. V.*
- Jones, *E. P.*, modified Peterson-Palmquist apparatus for the determination of carbon dioxide in air, A., 730.
- Jones, *E. P.* See also Internat. Construction Co., Ltd.
- Jones, *E. T.*, and Robertson, *A.*, syntheses of glucosides. V. Two new syntheses of rubiadin and syntheses of 1-*O*-methylrubiadin and of rubiadin glucoside, A., 1167.
- Jones, *F.*, calculation of gas calorific values by nomogram, B., 356.
- Jones, *F. C.*, manufacture of thread and similar rubber, (P.), B., 385.
- Jones, *F. E.*, Hamer, *W. E.*, and Bury, *C. R.*, beryllium salicylate, A., 556.
- Jones, *F. P.*, manufacture of bricks, blocks, slabs, tiles, pipes, etc., (P.), B., 559.
- Jones, *F. S.*, and Simms, *H. S.*, bacterial growth inhibitor (lactenin) of milk. I., A., 820.
- Jones, *G.*, existence and behaviour of complex polyiodides, A., 558.
metal cleaning, (P.), B., 333.
- Jones, *G.*, and Dole, *M.*, electrical conductance of aqueous solutions of barium chloride as a function of concentration, A., 998.
- Jones, *G. W.*, and Kennedy, *R. E.*, extinction of ethylene flames by carbon dioxide and nitrogen, A., 709.
extinction of ethylene oxide flames with carbon dioxide, B., 350.
extinction of ethylene dichloride flames with carbon dioxide, B., 1011.
- Jones, *H.*, interaction of excited helium and hydrogen atoms, A., 8.
energy of crystal lattices, A., 983.
- Jones, *H. A.*, and Smith, *C. M.*, solubility of rotenone. I. Solubility and optical rotation in organic solvents at 20°, A., 1043.
- Jones, *H. G.*, chrome [ore] and diasporite mixtures, B., 144.
- Jones, *H. P.*, emulsifiers, mixers, etc., (P.), B., 537.

- Jones, J. C., zinc chloride flux used in the manufacture of tin-plates, B., 866.
- Jones, J. H., Rapoport, M., and Hodes, H. L., effect of irradiated ergosterol on thyroparathyroidectomised dogs, A., 647.
- Jones, J. I. M. See Morton, J.
- Jones, J. L. See Gibson, C. S.
- Jones, J. P., deficiency of magnesium the cause of a chlorosis in corn [maize], B., 208.
- Jones, J. S. See Haag, J. R.
- Jones, J. W., and Jones, S., kilns, (P.), B., 536.
- Jones, J. W. T. See Hunter, R. F.
- Jones, K. See Folin, O.
- Jones, L., apparatus for reduction of impurities contaminating molten metal, (P.), B., 913.
- Jones, L. A., light filters for the isolation of narrow spectral regions, B., 840.
- Jones, L. D., Ayres, A. U., and Sharples Specialty Co., clarifier bowl, (P.), B., 746.
- Jones, L. D., and Sharples Specialty Co., centrifugal machine, (P.), B., 87.
- securing temporary intimate contact between immiscible liquids [without emulsification], (P.), B., 846*.
- Jones, L. D. See also Sharples Specialty Co.
- Jones, L. R., plasma-protein in relation to suspension stability of erythrocytes and precipitation of serum-protein with aluminium sulphate, A., 1305.
- Jones, L. W., and Major, R. T., acetylcholine chloride, A., 328.
- catalytic reduction of O-alkylated oximes, A., 454.
- O-alkyl-substituted hydroxylamino-acids, -esters, and -alcohols, A., 754.
- Jones, M. C. K., Farmer, H., Brewer, J. E., and Porter, H. C., micro-pyrometer and gas-furnace methods for determination of fusion point of coal ash, B., 890.
- Jones, M. P., the onion maggot (*Hydomyia antiqua*) in Ohio, 1929, B., 878.
- Jones, N. C. See Booth, H. S.
- Jones, O. C., magnetic separators, (P.), B., 955.
- Jones, P. C., and Goodrich Co., B. F., rubber composition and method of preserving rubber, (P.), B., 729.
- Jones, R. C., and Griscorn Russell Co., bow-tube film-type evaporator, (P.), B., 1050.
- Jones, R. N. See Nelson, R. E.
- Jones, R. T. P. See Callan, T.
- Jones, S. See Jones, J. W.
- Jones, S. B., vertical-retort practice on a small works, with special reference to coal testing under normal working conditions, B., 494.
- Jones, T. D., and Wagenheim, S., apparatus for spraying of paint or other liquids, (P.), B., 998.
- Jones, T. R. See Kern, E. F.
- Jones, W. See Murphy, A. F.
- Jones, W. H., cracking of petroleum oils and low-temperature coal tars, B., 1011.
- Jones, William H. See Taylor, Hugh S.
- Jones, W. J. See Bell, W. R. G., Davies, W. C., Dyke, W. J. C., Evans, D. P., Jackson, I. K., and Thomas, J. C.
- Jones, W. M. See Solomon, D.
- Jones, W. N., simple methods for measuring respiration rates [in plants], A., 119.
- Jones, W. R. D., metallic magnesium, B., 424.
- Jones, W. W., and Willson, F. G., polynitroarylnitroamines. I. 2:4:6-Trinitrophenylnitroamine, A., 1571.
- Jonica. See Wahl, A.
- Jonson, R., hardness and structural changes on heating cold-rolled steel containing 1.15, 0.90, or 0.60% C., B., 242.
- Jonsson, A. E., vacuum-drying apparatus, (P.), B., 691, 972*.
- straining device for vacuum-drying apparatus, (P.), B., 691.
- Joos, G., indication [unit] of hydrogen-ion concentration in biological studies, A., 1485.
- Joosten, H. See Tiefbau- & Kalteind. A.-G.
- Jordahl, A., air filter, (P.), B., 538.
- Jordan, D. See Daniels, A. L.
- Jordan, E. See Fischer, Hans.
- Jordan, H. See Chem. Fabr. auf Aktien (vorm. E. Sehering), Du Pont de Nemours & Co., E. I., and Schering-Kahlbaum Akt.-Ges.
- Jordan, H. E., lactose-broth fermenters [from filtered and chlorinated water], B., 642.
- Jordan, H. F. See Harkins, W. D.
- Jordan, H. J., regulation of oxygen consumption in animals with inconstant alveolar gaseous tension, A., 1053.
- Jordan, K. See Fischer, Hans.
- Jordan, R. See Mallon, M. C.
- Jordan, R. E., and Allbright-Nell Co., meat-curing method, (P.), B., 1045.
- Jorgensen, G. C. See Avery, S.
- Jorissen, W. J. See Shriner, R. L.
- Jorissen, W. P., explosive reactions and negative catalysis, A., 1002.
- Jorissen, W. P., and Beek, P. A. A. van der, oxidation of benzaldehyde, A., 341.
- Jorissen, W. P., Booy, J., and Heiningen, J. van, reaction regions. XX. Influence of various circumstances on the extension of explosion regions, A., 1255.
- Jorissen, W. P. See also Beek, P. A. A. van der.
- Jorns, G., regulation of secretion of insulin, A., 1069.
- Jorpes, E., islets of Langerhans in the monkfish (*Lophius piscatorius*, L.), A., 803.
- Jorpes, E. See also Hammarsten, E., and Levene, P. A.
- Joseph, A., and Compagnie Internationale pour la Fabrication des Essences et Pétroles, composition for the purification of gases, (P.), B., 979*.
- apparatus for hot purification [desulphurisation] of gases, (P.), B., 1141*.
- Joseph, A., and Société Internationale des Procédés Prudhomme Houdry, production of liquid fuels, (P.), B., 600*.
- Joseph, E. L., filters for air or other gases, (P.), B., 170.
- Joseph, G. H. See Cole, G. M.
- Joseph, T. L. See Furnas, C. C.
- Josephson, K., nomenclature of ring-isomeric forms of glucose as α - or β -sugars, A., 1273.
- Josephson, K., and Proffe, S., transformation reactions in the carbohydrate group. III. Synthetic hexosephosphates, A., 1166.
- Joslyn, M. A., Farley, H. B., and Reed, H. M., effect of temperature and time of heating on extraction of colour from red-juice grapes, B., 35.
- Joslyn, M. A., and Tucker, D. A., removal of cream of tartar from grape juice by freezing storage, B., 787.
- Jos-Pe Farbenphoto-Ges.m.b.H., production of multicolour pictures, (P.), B., 841.
- Joss, E. C. See Buckley, J. S.
- Jost, F., production of alkali nitrates, (P.), B., 611.
- production of mixed fertilisers, (P.), B., 736.
- Jost, H. See Embden, G.
- Jost, W., mechanism of ionic conduction in solid compounds [of the class of] good conductors, A., 140, 674.
- validity of Ohm's law in the case of strongly conducting solid electrolytes, A., 164.
- mechanism of mutual diffusion in solid bodies; diffusion of gold in silver, A., 1106.
- Jost, W., and Schweitzer, H., determination of transport numbers of solids, A., 1375.
- Josz, E., manufacture of plaster for building and similar purposes, (P.), B., 511.
- Joszt, A., and Kuniński, M., physiology of some Synievski dextrins, A., 1477.
- Jouis, E. See Brioux, C.
- Jouniaux, A., variation with temperature of the density and mol. wt. of fused cadmium, A., 1105.
- variation with temperature of the density and mol. wt. of fused silver, A., 1105.
- relation between the mol. wt. and density of magnesium in the liquid state, A., 1243.
- relation between the mol. wt. and density of gold in the liquid state, A., 1243.
- Jourdan, F., treating leucitic rocks with oxides of nitrogen, (P.), B., 861.
- Jourdan, F. See also Hermann, H.
- Jovellanos, C. M., determination of available alkalinity in commercial lime, B., 238.
- Jovignot, C., method and apparatus giving the extension coefficient and breaking load of metallurgical products in thin sheets, B., 772.
- Jowett, M., rate of molecular collisions in liquid systems, A., 137.
- Joyce, C. H., effect of varying the steeping period of barley, B., 389.
- Józsa, S., and Gore, H. C., determination of liquefying power of malt diastase, B., 389.
- Jucaitis, P. See Fricke, R.
- Juckenack, A., description of gin, B., 480.

- Judd, G. F., and Carlier, J., production of plates for electric storage batteries and accumulators, (P.), B., 1161.
- Judd, R. C., and Sorum, C. H., chloride-free ferric oxide hydrosols and the Burton-Bishop rule, A., 1116.
- Judson, P., principal structural features of raw materials for silica bricks, B., 59.
- Jüngling, K. See Berl, E.
- Jüttner, H. See Neumann, B.
- Juhel, M. See Soc. d'Études pour les Colonies et l'Étranger.
- Julien, P., [internally-lined] valves for corrosive fluids, (P.), B., 972.
- Juliusburger, F. See Freundlich, H.
- Jullien, P. See Lévy, (Mlle.) Jeanne.
- Juman, L., theory of the lead accumulator, B., 1116.
- Jung, E. See Helbig, M.
- Jung, G., and Schleede, A., molecular polarisation of symmetrical but non-rigid molecules, A., 275.
- Jung, G., and Schmick, H., influence of molecular attractive forces on the viscosity of gaseous mixtures, A., 536.
- Jung, G., and Voit, K., detection of hexamethylenetetramine in the cerebrospinal fluid, A., 954.
- Jung, G., and Ziegler, W., vapour pressure and vapour constitution of mercurous bromide, A., 1356.
- Jung, G., and Ziegler, W., vapour pressure and vapour constitution of mercuric bromide, A., 1370.
- Jung, H., apparatus for filtering liquids under pressure, (P.), B., 126, 889*.
- Jung, H., and Köhler, E., thuringite from Schmiedefeld, Thuringia, A., 733.
- Jung, M., washing of coal, (P.), B., 46.
- Jung, P., production of agglomerates of ores, mineral, etc., (P.), B., 151*.
- Jung, P., production of higher tar yields in carbonisation processes, (P.), B., 752.
- Jungblutt, G., centrifugal separators, (P.), B., 444.
- Junge, C., apparatus for the determination of corrected m. p., A., 313.
- Junker, H., sources of error and inaccuracies in surface tension measurements by means of the drop apparatus. I., A., 1109.
- Junkers, A. H., treatment [polishing] of yarn, (P.), B., 1107.
- Junkers, H., [gilled] heat-exchanging apparatus, (P.), B., 846.
- Juravski, G. I., content of reducing substances and their dynamics during the air-conditioned fermentation of an industrial tobacco, B., 120.
- Jurenka, W. See Kurtenacker, A.
- Juretzek, H. See Pohl, E.
- Juriev, V. I. See Nikitin, N. J.
- Jurist, A. E., and Christiansen, W. G., neoarsphenamine. II. Chemistry of sodium formaldehydesulphoxylate; structure of neoarsphenamine, A., 937.
- Jurist, A. E., the pH of neoarsphenamine and sulpharsphenamine in relation to differences in structure, A., 1457.
- Jurist, A. E., therapeutic activity of neoarsphenamine, B., 301.
- Jurist, A. E. See also Smith, E. B.
- Juschakov, V. J. U. See Arzibischev, S.
- Juschkevitch, See Yushkevich.
- Juse, W. P. See Belenky, M.
- Just, A., cathodes for electron-discharge devices, (P.), B., 152.
- Just, F. See I. G. Farbenind. A.-G.
- Justi, E., attempt to produce pure para-nitrogen, A., 524.
- Justi, E., preparation of pure para-nitrogen, A., 721.
- Justice, E. S. See Hammett, F. S.
- Justin-Besançon, L. See Labbé, M., and Villaret, M.
- Justin-Mueller, E., substantivity [of dyes], B., 610.
- Juvala, A., reactivity of alkenyl halides of the types $\text{CH}_2\text{:CH}[\text{CH}_2]_n\text{X}$ and $\text{CH}_3\text{CH:CH}[\text{CH}_2]_n\text{X}$, A., 1401.
- Juvan, H. See Dischendorfer, O.
- Juza, R. See Biltz, W.
- Kacen, I. S. See Spitalski, E. I.
- Kačer, F. See Gen. Aniline Works, Inc.
- Kaczorowski, A. See Wasilewski, L.
- Kaden, A., gas producer for wet brown coal, (P.), B., 804.
- Kadenacówna, M. See Htaseko, M.
- Kadimura, M., biological significance and distribution of glycogen in the pregnant uterus of the bat. I. Placenta, umbilical cord, and amnion. II. Yolk-sac and mesometrium of the uterus, A., 1609.
- Kadita, O. See Tuzi, Z.
- Kadlec, J., determination of the sugar content of carbonatation scums [filter-press cake], B., 29.
- Käding, H. See Erbacher, O., and Riehl, N.
- Kägi, J. See Soc. of Chem. Ind. in Basle.
- Källe, T., automatically regulating the concentration of materials [e.g., paper pulp] suspended in liquids, (P.), B., 793.
- Kämmerer, H. See Gen. Aniline Works, Inc.
- Kämmerer, R. See Busch, M.
- Kämpf, A., new viscosimeter, B., 844.
- Kämpf, A., and Schrenk, O., viscosimeter, A., 1014.
- Kaempf, E. See Rinck, A.
- Kästner, F., and Mayer, F. K., X-ray examination of kaolins and clays, B., 1066.
- Kästner, J. G., and Tröger, C. H., tanning [of hides], (P.), B., 207.
- Kaesz, S. See Hamburger, R.
- Kaffer, H. See Ges. f. Teerverwertung m.b.H.
- Kagan, S. See Rubens, B.
- Kahan, I. See Doliwo-Dobrowskij, W.
- Kahane, E., determination of sodium by the uranyl [magnesium acetate] method, A., 726.
- Kahane, E., determination of sodium, A., 880.
- Kahl, E., Tomczyński, W., and Weil, S., toxicity of arseno-benzene derivatives, A., 1213.
- Kahl, L., discontinuous distillation of tars, (P.), B., 181*.
- Kahl, L. See also Rütgerswerke A.-G.
- Kahlbaum, W. See French, H. J.
- Kahle, H. See Ges. f. Linde's Eismaschinen A.-G.
- Kahlenberg, L., and Gloss, J. O., presence of aluminium in animal and plant material, A., 492.
- Kahlenberg, L. See also Holt, M. L.
- Kahlenberg, O. J. See Supplee, G. C.
- Kahler, H., De Eds, F., Rosenthal, S., and Voegtlin, C., electron equilibria in biological systems. III. A vacuum-tube static voltmeter which eliminates minute polarisation currents, A., 968.
- Kahler, L. See Brit. "Rema" Mannf. Co., Ltd.
- Kahler, O. See Glaser, E.
- Kahlson, G., and Werz, R. von, detection and presence in human blood of substances contracting the vessels, A., 490.
- Kahn, M., Le Breton, E., and Schaeffer, G., manufacture of products for tanning and tawing industries, (P.), B., 679*.
- Kahn, M. C. See Quick, A. J., and Torrey, J. C.
- Kaieda, J., embryochemical investigations with the injection method. II. Carbamide formation in the hen's embryo, A., 638.
- Kaieda, J., biochemical investigation of the labyrinth and cerebrospinal fluids of the dog-fish, A., 946.
- Kailan, A., and Ostermann, A., velocity of esterification with alcohol, ethylene glycol, and glycerol containing hydrochloric acid, A., 710.
- Kaiser, H., and Eggensperger, K., adulteration of Flores tiliae, D.A.B. VI., B., 532.
- Kaiser, H., and Wetzel, E., detection of acetone in urine in presence of acetoacetic acid, A., 1610.
- Kaiser, H. E., and Hancock, R. S., purification of wood rosin, B., 623.
- Kaiser, H. E., Hancock, R. S., and Hercules Powder Co., refining of rosin, (P.), B., 431.
- Kaiser, L. See Lichtenberger, T.
- Kaiser, O. See Soc. of Chem. Ind. in Basle.
- Kaiser-Wilhelm-Institut für Eisenforschung, manufacture of metallic substances with a fibrous structure, (P.), B., 19.
- Kaiser-Wilhelm, Institut für Eisenforschung. See also Wever, F.
- Kaishio, Y., and Gardner, J. A., Montignie's isomeride of cholesterol, and the effect of heat on cholesterol, A., 1431.
- Kajdi, L. See Hamilton, B.
- Kakinuma, G. See Matsumura, S.
- Kaku, T., relationship between chemical composition and uric acid-excreting effect of cinchophen, A., 1063.

K.

- Kaku, T., comparative study of cinchophen preparations in their action on the elimination of uric acid and the mode of action of cinchophen, B., 393.
- Kaku, T., and Yamaguchi, I., relation between composition and uric acid excretive action of various cinchophen derivatives. I. and II., A., 1063.
- Kalabekova, E. A. See Pestov, N. E.
- Kalabin, N. A., producing a steam and gas mixture of high pressure, (P.), B., 650.
- Kalamkar, R. J., crop variation. VIII. Application of the resistance formula to potato data, B., 876.
- Kalashnikov, E. See Einhorn, G.
- Kalb, G., and Koch, L., crystal habit of zinc blende, A., 1099.
- Kalberer, W. See Dohse, H.
- Kalbermatten, R. See Asher, L.
- Kali-Chemie Akt.-Ges., removal of sulphates from clays or similar argillaceous materials, (P.), B., 510.
- Kali-Chemie Akt.-Ges., and Rhenania-Kunheim Verein Chemischer Fabriken Akt.-Ges., production of barium sulphide, (P.), B., 765.
- Kali-Chemie Akt.-Ges. See also Gerngross, O., and Rüsberg, F.
- Kali-Forschungs-Anstalt Ges.m.b.H., manufacture of potassium nitrate, (P.), B., 508.
- utilisation [as manure] of the final liquors in the potassium industry, (P.), B., 736.
- production of magnesium oxide from kieserite and other salts or salt mixtures containing magnesium, (P.), B., 818.
- production of potassium monophosphate, (P.), B., 861.
- Kali-Forschungs-Anstalt Ges.m.b.H., Kaselitz, O. F., and Höfer, P., production of hydrobromic acid, (P.), B., 187.
- Kali-Forschungs-Anstalt Ges.m.b.H. See also Höfer, P., Kaselitz, O. F., and Uebler, B.
- Kali-Industrie Akt.-Ges., and Thorssell, C. T., production of nitrogen and hydrogen, (P.), B., 143.
- Kali-Industrie Akt.-Ges., Thorssell, C. T., and Kristensson, A., removal of sulphuretted hydrogen from gases, (P.), B., 132.
- Kalischek, A. See Arndt, F.
- Kalischer, G. See Gen. Aniline Works, Inc.
- Kalitaeva, E. M., influence of osmotic pressure on the growth, transpiration, and storage of ash in tobacco, B., 435.
- Kallam, F. L., Deckert, G. W., and Coulthurst, L. J., fractional analysis [of oils and gases], B., 596.
- Kallas, J. G. See Ruchhoff, C. C.
- Kalle & Co. Akt.-Ges., preparation of anaglyphs, (P.), B., 38.
- production of photographic pictures by the aid of diazo-compounds and tanning substances, (P.), B., 218.
- manufacture of enzymes by means of bacteria, (P.), B., 261.
- production of light-sensitive layers by means of diazo-compounds, (P.), B., 303, 487.
- manufacture of light-sensitive layers [for diazo-types], (P.), B., 350.
- production of photographic pictures in natural colours, (P.), B., 395.
- production of light-sensitive layers, (P.), B., 641.
- development of diazo-types, (P.), B., 641.
- spinning of tubular bodies from cellulose solutions such as viscose, (P.), B., 708.
- drying of seamless tubular bodies made of cellulose, (P.), B., 761, 944.
- manufacture of cellulose hydrate films, (P.), B., 899.
- production of diazo-type prints, (P.), B., 929.
- production of diazo-types, (P.), B., 967.
- manufacture of light-sensitive layers, (P.), B., 1092.
- Kalle & Co. Akt.-Ges. See also Schmidt, M. P.
- Kallinikova, M. N., determination of magnesium in serum, A., 944.
- hydremia in alimentary hyperglycemia, A., 1209.
- magnesium in the blood of psychoneurotic children, A., 1469.
- potassium and calcium in the blood of psychoneurotic children, A., 1469.
- Kallinikova, M. N., and Obratzov, G. D., cholesterolemia in alimentary hyperglycemia, A., 1209.
- Kallinikova, M. N. See also Obratzov, G. D.
- Kallmann, H., and London, F., quantum mechanics of energy transitions, A., 395.
- Kallmann, H., and Rosen, B., ionisation and dissociation processes in nitrogen, oxygen, carbon monoxide, and dioxide, A., 16, 267*.
- elementary processes of ionic and electronic collisions, A., 514.
- direct evidence for the formation of ions by an ion stream, A., 658.
- Kallmann, H., and Rosen, B., ionisation potential of CN and C₂ molecules, A., 665.
- electron exchange between ionised and neutral types, A., 1230.
- electron exchange of slow ions. II., A., 1492.
- formation of neutral particles of high velocity by transference [of charge], A., 1494.
- Kallmann, H. See also Dorsch, K. E.
- Kalning, H., addition of chemicals to flour in order to increase the volume on baking, B., 390.
- Kalyuzhin, A., losses of nickel in hydrogenation plants, B., 776.
- Kam, E. J. van der. See Wibaut, J. P.
- Kamai, G. X. See Arbusov, A. E.
- Kambara, S. See Matsui, M.
- Kambayashi, Y., sulphur content of rat's muscle and liver, A., 238.
- Kameda, C., cholesterol in the rabbit given lecithin, A., 246.
- fluctuation of the cholesterol content [of rabbit's blood] due to vegetable stimuli. III., A., 246.
- Kamerman, P., colorimetric determination of p_H values in alkaline soils, B., 1000.
- Kameyama, N., liquid ammonia and calcium nitrate, A., 293.
- Kameyama, N., and Kato, J., electro dialysis of exhausted molasses, B., 478.
- Kameyama, N., and Mayeda, Y., electro dialysis of exhausted molasses. II., B., 634.
- Kameyama, N., and Noda, T., electrolytic refining of copper using complex salts of cuprous chloride. III., IV., and V., B., 195, 331.
- Kameyama, N., and Oka, S., X-ray examination of Japanese acid clay, A., 448.
- colour reaction of Japanese acid clay towards leucomalachite-green hydrochloride, A., 538, 1515.
- essential constituent of Japanese acid clay and a theory of its reactions, A., 1017.
- Kameyama, N., and Onoda, K., electrolytic refining of copper, using complex salts of cuprous chloride. VI., B., 772.
- Kameyama, N., and Takashio, T., electrolytes for lead accumulators, B., 722.
- Kami, Y., and Inubushi, M., desulphurisation of viscose [rayon] silk with ammonia solution, B., 607.
- Kami, Y., Inubushi, M., and Kitazawa, K., cellulose acetate. I. Acetylation of cotton cellulose, B., 278.
- Kami, Y., Kitazawa, K., and Yamashita, T., ripening of alkali-cellulose and the viscosity of the viscose, B., 551.
- Kami, Y., and Matsuyama, T., desulphurisation of viscose [rayon] silk, B., 96.
- Kamienski, B., phase boundaries "ideal" electrode|electrolyte solution and electrolyte solution|dielectric, A., 37.
- spatial asymmetry of polar molecules and the electrical double layer, A., 687.
- Kamimoto, R. See Nomitsu, T.
- Kaminer, B. See Gurvich, V.
- Kaminer, S. See Landau, A.
- Kaminski, E. Z., and Selyakov, N. Y., determination of inhomogeneities in metal specimens of any form by means of X-rays, B., 912.
- Kaminski, F., titrimetric determination of calcium in phosphorites, B., 55.
- Kaminski, S. See I. G. Farbenind. A.-G.
- Kamiya, T., determination of glutathione content of normal and pathological tissues, A., 1608.
- relation between glutathione content and growth of animals, A., 1608.
- Kamm, E. D. See Imperial Chem. Industries, Ltd.
- Kamosita, Y., potassium thiocyanate method for determining soil acidity, B., 921.
- Kamp, G., device for separating unburnt particles from hot gases, (P.), B., 591.
- Kamp, J. van de. See Mosettig, E.
- Kampen, G. B. van, "Durener" sickness, A., 492.
- Kamzolkin, V. P. See Volikovitch, S. I.
- Kan, E. I. See Nesmejanov, A. N.
- Kanamaru, K., extraction of pure cellulose from plant raw materials (Reports 2-4); pretreatment prior to chlorination. I.-III., B., 757.
- Kanao, R. See Matsumura, S.
- Kanao, S., components of the Chinese drug "Ma Huang." VII. l-Norephedrine, A., 352.
- Kanda, S., *Cypridina* luciferin, A., 1202.

- Kandiah, S. See Joachim, A. W. R.
- Kandilis, J. D., and Karnis, N. S., Greek tobacco-seed oil, B., 1079.
- Kandler, E. See Koller, G.
- Kaneko, H., Hayashi, T., Chino, S., and Miyasaka, M., change of some properties of sericin particles on the surface of the [silk] cocoon on drying, B., 857.
- Kaneko, H., and Miyasaka, M., relation between reeling process of the cocoon and physico-chemical properties of the aqueous colloidal solution of sericin, A., 1610.
- Kaneko, S., osmotic pressure in concentrated solution, A., 409.
- Kaneko, S., Nemoto, C., and Makino, S., manganese dioxide for dry cells. I. and II., B., 245.
- Kaneko, S. See also Ogawa, W.
- Kanevskaja, S. J., action of potassium hypobromite on *o*-benzamidophenylbutyramide, A., 212.
- synthesis of *t*-surinamine, A., 212.
- Kang, M. H., and Libby, C. E., application of the de Vains chlorination process to the pulping of birch wood, B., 1104.
- Kanhäuser, F., and Montan- & Industrie-Werke vorm. J. D. Starck, production of citric acid by fermentation, (P.), B., 1128*.
- Kaniwetz, I., methods for the chemical and physical analysis of soils, B., 577.
- determination of adsorbed bases in soils containing carbonates, B., 578.
- Kansas City Gasoline Co. See Wellman, F. E.
- Kanters, R. See Meyer, Julius.
- Kantorowicz, O. See Seemann, H.
- Kao, P. T., micrography of piezo-electric quartz, A., 1240.
- Kapeller-Adler, R., and Csató, T., methylated nitrogen compounds in sea-weed, A., 1483.
- Kapeller-Adler, R., and Krael, J., distribution of nitrogen in the muscles of various species of animals. I., A., 1056.
- distribution of nitrogen in the muscles of various species of animals. II. Rays and sharks, A., 1464.
- Kapfhammer, J., isolation of the ϵ -monobetaine of lysine from methylated caseinogen, A., 1420.
- Kapfhammer, J., and Bischoff, C., acetylcholine and choline from animal organs. I. Preparation from ox-blood, A., 1464.
- Kapfhammer, J. See also Spörer, H.
- Kapitza, P., change of resistance of gold crystals at very low temperatures in a magnetic field and superconductivity, A., 531, 1242.
- Kaplan, D. See Bobtelski, M.
- Kaplan, I., indicator for titration of aromatic hydroxy-acids and their substitution products or esters, A., 1053.
- Kaplan, J., afterglow in air, A., 654.
- heat of dissociation of carbon monoxide, A., 838.
- Kaplan, J. See also Cario, G.
- Kapp, L. C., approximate size of soil particles at which the heat of wetting is manifested, B., 629.
- Kappeler, H. See Haller, P.
- Kappeller, G., Prange, G., and Reidemeister, W., detection of dried plums in plum jam, B., 790.
- Kappellmeier, C. P. A., diarylarsinic acids, halogenodiarylarsines, and the constitution of 10-chloro-5:10-dihydrophenarsazine, A., 354.
- Kappen, H., phosphate manuring on acid soils, B., 575.
- home management [of soils] in agriculture, B., 833.
- fertilisation of acid soil with potassium salt, B., 961.
- Kapulitzas, H. J. See Feigl, F.
- Kapustinski, A., chemical affinity and the principle of symmetry, A., 981.
- Kar, K. C., and Biswas, B., theory of intermittent action and infra-red band spectrum, A., 272.
- Kar, K. C., and Ganguli, A., statistical basis for the Langmuir adsorption formula, A., 151.
- theory of electrical adsorption, A., 685.
- application of generalised statistics to thermal ionisation, A., 1080.
- Karácsonyi, L., change in acidity of bread on storage, B., 345.
- action of aldehydes on white bread, B., 481.
- Karaoglanov, Z., secondary precipitation processes during the mutual action of lead chloride and sulphuric acid, A., 563.
- Karaoglanov, Z., and Saportschew, B., gravimetric determination of lead as sulphate and as chromate, A., 1393.
- Karaoglanov, Z., and Tschavdarov, D., mechanism of precipitation processes in which compounds of bromine with lead are formed, A., 438.
- Karashima, J. See Tomita, M.
- Karatygin, V. M., and Hetter, A. I., changes in the alkali reserve and the sugar content of the bile by the action of various physiological excitants. I., A., 805, 1609.
- Karavaev, N. L., and Kriwozjas, I. M., central Asiatic reeds as material for preparation of pulp, B., 1146.
- Karavaev, N. L., and Odinzov, P. N., Kendyr [seed-hair] down, B., 455.
- down of *Apocynum venetum*, B., 1061.
- Karavaev, N. M., and Ivanov, A. K., atmospheric oxidation of sub-Moscow coal at different temperatures, B., 447*.
- Karavaev, N. M., and Rapoport, I. B., coal from Kuznetski basin, Siberia, B., 891.
- Karcher, E. See Dornfried, A.
- Kardo-Syssoeva, E. K. See Kostytschev, C. P.
- Karelitz, S., Cohen, P., and Leader, S. D., insulin inactivation by human blood-cells and plasma *in vitro*. I. Effect of normal and of diabetic blood on insulin action, A., 820.
- insulin inactivation by human blood-cells and plasma *in vitro*. II. Effect of infection on insulin, A., 962.
- Kargin, V., electrolyte coagulation of colloids. VII. Coagulation process of tungstic acid sols, A., 33.
- Kariyone, T., and Sato, Teruo, poisonous principle of *Coriaria japonica*, A. Gray. II., A., 1618.
- Karl, A., production of zirconium oxide [from zirconium mineral], (P.), B., 819.
- Karnis, N. S. See Kandilis, J. D.
- Karnitzki, V. A. See Popov, A. P.
- Karnop, R., and Sachs, G., kinetics of recrystallisation of metals, A., 530.
- coarse crystallisation of aluminium, B., 911.
- Karns, G. M., effectiveness of iodine in the control of smut on oats, B., 922.
- Karpas, A. M., mitogenetic radiation in the digestion of protein; (third source of mitogenetic radiation), A., 249.
- Karpen, N. V., supposed transmutation of lead effected by sunlight, A., 659.
- Karpov, L. Y., catalytic oxidation of alcohol, B., 7.
- Karraker, P. E., inaccuracy of the quinhydrone electrode in [determination of p_H of] many Kentucky soils, B., 630.
- Karrer, E., classification of plastics and definition of certain properties, B., 844.
- Karrer, E., Davies, J. M., and Dieterich, E. O., simplified Goodrich plasmometer, B., 351.
- Karrer, P., enzymic degradation of native and precipitated cellulose, of artificial silk, and of chitin, B., 1145.
- Karrer, P., Euler, B. von, and Euler, H. von, antimony trichloride reaction for vitamin-A, A., 379.
- Karrer, P., Euler, H. von, and Rydbom, M., physiological action of xanthophyll, A., 1617.
- Karrer, P., and Golde, T., plant colouring matters. XXI. Conversion of crocetin into crocetane, A., 1157.
- Karrer, P., and Helfenstein, A., plant colouring matters. XVI. Carotene. I., A., 76.
- plant colouring matters. XVII. Carotenoids in faeces of sheep and cow, A., 333.
- plant colouring matters. XX. Colouring matter from saffron. VI., A., 780.
- Karrer, P., Helfenstein, A., and Wehrli, H., plant colouring matters. XVIII. Constitution of carotenoids, A., 333.
- Karrer, P., Helfenstein, A., Wehrli, H., and Wettstein, A., plant colouring matters. XXV. Constitution of lycopene and carotene, A., 1422.
- Karrer, P., and Ishikawa, S., plant colouring matters. XXII. and XXVI. Esters of xanthophyll, A., 1157, 1440.
- Karrer, P., and Jirgensons, B., plant colouring matters. XXVII. Methylation of xanthophyll, A., 1440.
- Karrer, P., and Kehl, W., configuration of *l*-phenylalanine, *l*-tyrosine, and *l*-dihydroxyphenylalanine, A., 339.
- Karrer, P., and Krauss, E. von, polysaccharides. XLII. Physical structure of starch, A., 72.
- polysaccharides. XLIII. Processes taking place when polysaccharides are heated in glycerol, A., 1415.
- Karrer, P., and Pieper, B., plant colouring matters. XXIV. Colouring matter of wild and cultivated blackberry, A., 1442.
- Karrer, P., and Vogt, A., lupinine, A., 1454.
- Karrer, P., and Wehrli, H., plant colouring matters. XXVII. Colouring matter of sea-buckthorn berries (*Hippophaë rhamnoides*), A., 1627.

- Karrer, P., Wehrli, H., and Helfenstein, A., plant colouring matters. XIX. Zeaxanthin and xanthophyll, A., 609.
- Karrer, P., and White, S. M., polysaccharides. XLIV. Chitin, A., 1419.
- Karrer, P. See also Euler, H. von and Saloman, H.
- Karrick, L. C., production of improved solid fuel from the distillation of carbonaceous materials, (P.), B., 90.
- distillation of solid carbonaceous material, (P.), B., 176.
- distillation and gasification of solid carbonaceous material, (P.), B., 230.
- Karschulin, M., photogalvanic phenomena with irradiated cupric oxide electrodes (Becquerel effect), A., 865.
- Karshan, M., and Freeman, R. G., *jun.*, determination of hæmoglobin, A., 1461.
- Karstens, A. See Diels, O.
- Karström, H., formation of enzymes in bacteria. I. and II., A., 644, 818.
- Karström, H. See also Virtanen, A. I.
- Kartashev, A. V., and Sai-Moiseeva, E. G., action of nitric acid on phenol in ethyl acetate solution, A., 907.
- Karvonen, A., trustworthiness of refractometric tables, A., 314.
- methyl sebacate, A., 578.
- Kary, C. von. See Pacsu, E.
- Karyakin, I. M., and Golubev, A. A., determination of the inorganic acidity of crude nitro-products, B., 895.
- Kasai, K., determination of particle size in pulverised substances, B., 843.
- Kasarnowski, J., lattice energies and compressibilities of alkali hydrides, A., 675.
- Kasatkina, I. A. See Gorbatshev, S. V.
- Kasohirin, S. See Schmuk, A.
- Kasehtanov, L. See Spitzin, V., and Stadnikov, G.
- Kasé, T., formation of graphite during solidification of cast iron, B., 560.
- Kasé, T. See also Honda, K.
- Kaselitz, O. F., and Kali-Forschungs-Anstalt G.m.b.H., production of sulphates containing little or no water of crystallisation, (P.), B., 861.
- production of potassium nitrate, (P.), B., 861.
- Kaselitz, O. F. See also Kali-Forschungs-Anstalt G.m.b.H.
- Kashihara, H. See Osugi, S.
- Kashima, K., thermal decomposition of aliphatic ethers, A., 450.
- Kasper, C. See Freed, S.
- Kasper, F., open-hearth [steel] refining process, (P.), B., 197.
- Kassatkin, W., classification of moorland soils (podsolised moor soils), B., 574.
- Kassel, L. S., persistence of velocity and the theory of second-order gas reactions, A., 546.
- equilibrium between matter and radiation, A., 660.
- rate of rearrangement of pinene to dipentene, A., 865.
- rates of second-order gas reactions, A., 865.
- binding energy of some organic compounds, A., 982.
- homogeneous decomposition of gaseous acetaldehyde, A., 1001.
- theory of third-order gas reactions, A., 1126.
- molecular diameters of nitrogen pentoxide, A., 1502.
- Kassler, J., determination of manganese in cobalt steels, B., 1071.
- Kassler, R. See Hüttig, G. F., and Tropsch, H.
- Kassner, G., and Stempel, B., absorption of hydrogen by calcium and its alloys, A., 718.
- Kassner, J. L. See Willard, H. H.
- Kast, W., Raman effect in the X-ray region, A., 13.
- Kastenhuber & Lehrfeld. See Woodward, J. E.
- Kastler, A., Raman effect of optically active liquids, A., 1498.
- Kastner, J. G., treatment [lubrication] of fibrous material of vegetable, artificial, or animal origin, (P.), B., 138.
- Kasuga, S., determination of absorbable phosphate in soils by Neubauer's method, B., 474.
- Kasyanov, N. See Tiutiunnikov, B.
- Katabuchi, H., production of typhoid antitoxic substance and its relation with hormones, A., 503.
- Katagiri, H., and Kitahara, K., formation of kojic acid by *Aspergillus oryzae*. I., A., 1477.
- Katai, K. See Okuda, Y.
- Kates, P. See Butterworth, W. N.
- Kaibner, A. T., annealing and heat-treating furnaces, (P.), B., 379.
- Kato, J. See Abderhalden, E., and Kameyama, N.
- Kato, K. See Kimura, K.
- Kato, Kenzi. See Matsui, M.
- Kato, (Miss) S., absorption spectra of salt solutions. I. Absorption spectra due to the halogens and some metallic ions, A., 519.
- absorption spectra of salt solutions. II. Absorption spectra due to oxyacidic anions. III. Absorption spectra due to cations, A., 660.
- band spectra of OsO₄ in gaseous state and in solution, A., 1089.
- Kato, T., utilisation of bittern. I. Recovery of Glauber's salt, B., 1108.
- Kato, Y., and Ikeno, R., process of decomposing chromite, B., 903.
- Kato, Y., and Matsubashi, T., preparation of manganese dioxide. I. and II., A., 308.
- Kato, Y., and Murakami, T., oxidation of arsenite to arsenate, A., 1130.
- making the cuprous oxide film on the surface of copper [plates]; its efficiency of rectification [of electric currents], B., 287.
- Kato, Y., and Takei, T., zinc ferrite; its formation, composition, and chemical and magnetic properties, A., 873.
- Kato, Y., and Yamamoto, Koshiro, manufacture of manganese dioxide, (P.), B., 819.
- Katoh, N., X-ray investigations of copper amalgams, A., 22, 400.
- X-ray investigations on copper-arsenic alloys, A., 1509.
- Katrandiev, K. See Tapernoux, A.
- Katscher, E. See Fuchs, K., and Pollak, J.
- Katschinsky, N. A., freezing, thawing, and soil humidity in woods and fields, B., 161.
- Katsurai, T., influence of autoclave treatment on the form of hydroxides and on the nature of colloidal suspension, A., 289.
- Katsurai, T., and Watanabe, T., structure of iron oxide prepared by autoclave treatment, A., 846.
- Katsurai, T. See also Svedberg, T.
- Katti, M. C. T., seeds of *Casalpinia bonducella*, Flem. I., A., 966.
- Katti, M. C. T., and Manjunath, B. L., oil from the seeds of *Butea frondosa*, Roxb., B., 292.
- Katti, M. C. T., and Puntambekar, S. V., seeds of *Casalpinia bonducella*, Flem. II. Fatty oil, A., 966.
- Katti, M. C. T., and Shintre, V. P., examination of stems of *Coscinium fenestratum*, Coleb. I., A., 1223.
- Kattwinkel, R., universal distillation apparatus, A., 315.
- apparatus for determination of volatile compounds [by adsorption with activated carbon], A., 447.
- apparatus for determining the plastic range of bituminous coals, B., 973.
- Katz, G. J., and Leibensohn, E. A., is there a heart hormone? A., 117.
- Katz, J. R. [with Derksen, J. C.], physical chemistry of starch and bread-baking. IV. [Analogy between] conversion of starch into paste and mercerisation of cellulose. VI. Effect of drying on X-ray spectra of starch preparations, B., 1126.
- Katz, J. R. [with Itallie, T. B. van], physical chemistry of starch and of bread-baking. V. Identity of retrogradation spectra for all types of starch, B., 1126.
- Katz, J. R. [with Rientsma, L. M.], physical chemistry of starch and of bread-baking. II. The modification of starch with V-spectrum (gelatinisation spectrum) is the equilibrium form at a high, and that with B-spectrum (retrogradation spectrum) at a low, temperature, B., 1043.
- Katz, J. R. [with Rientsma, L. M., and Itallie, T. B. van], physical chemistry of starch and of bread-baking. III. First and second stages of gelatinisation, B., 1043.
- Katz, J. R. [with Rientsma, L. M., Itallie, T. B. van, and Heyna, (Fr.) L.], physical chemistry of starch and of bread-baking. I. Alteration of X-ray spectrum of starch in the baking and the ageing ["staling"] of bread, B., 1043.
- Katz, J. R. See also Derksen, J. C., Fringsheim, H., and Trogus, C.
- Katz, L. See Tschernokhvorostov, V.
- Katz, S. H., and Gries, C. S. W., mine rescue apparatus: the S.M.R.B. gas mask, B., 271.
- Katzenstein, (Mlle.) M. See Pinkus, A.
- Kauba, F., recovering zinc sulphide from zinc-containing liquids, (P.), B., 612.
- Kaucher, M. See Wang, C. C.
- Kaudela, E., dry purification of [coal and producer] gas, B., 355.
- Kauffman, E. J., and Valley Mould & Iron Corporation, ingot mould, (P.), B., 1075.

- Kauffman, H. L., determining air flow in agitation problems, B., 535.
- Kauffmann, F., and Mislowitzer, E., enzymic degradation of histidine, A., 1619.
- Kauffmann, H., kinetics of chlorine bleaching, B., 1062.
- Kaufer, F. See Wacker Ges. f. Elektrochem. Ind. G.m.b.H., A.
- Kaufmann, E., substitutes for insulin. V.-VIII., A., 117.
- Kaufmann, F. See Trautz, M.
- Kaufmann, H. P., isolation of additive products of thiocyanogen and unsaturated fatty acids, A., 741.
- cacao butter. II. The partial iodine value [P.I.V.] of fats, especially of cacao butter, B., 247.
- cacao butter. III. Concentration of the unsaturated components of cacao butter in order to ascertain the purity, B., 430.
- preparation of compounds of alkaline-earth nitrites with methylxanthines, (P.), B., 741.
- Kaufmann, H. P., and Tuschkevitch, S., quantitative analysis of hemp-seed oil, B., 247.
- Kaufmann, H. P., and Keller, M., cacao butter. IV. Detection of hardened fats by spectroscopical identification of nickel, B., 430.
- detection of hardened fats, B., 673.
- Kaufmann, H. P. See also I. G. Farbenind. A.-G.
- Kaufmann, W. See Kuhn, R.
- Kaul, R. K. See Palit, C. C.
- Kaulbersz, G., preparation of insulin from alkaline aqueous extracts, A., 961.
- Kaunagraph Co., transfer and marking composition therefor, (P.), B., 327.
- Kaunitz, H. See Fürth, O.
- Kaupp, E. See Eisenhut, O.
- Kautsky, H., and Gaubatz, E., adsorption linking. I., A., 1247.
- Kavčič, J., plant colloids. XXV. Potato starch from different varieties of *Solanum tuberosum*, B., 526.
- Kawada, G., and Yosida, J., preparation of salicylaldehyde by electrolytic reduction of sodium salicylate, A., 553.
- Kawagoe, M. See Shinoda, J.
- Kawaguchi, S., influence of light rays on the total cholesterol content of the skin, A., 955.
- behaviour of the total cholesterol of the blood, A., 955.
- Kawahara, T., phytase of *Aspergillus* species, A., 1477.
- Kawai, K., preparation of concentrated cod-liver oil, (P.), B., 519*.
- Kawai, K. See also Somiya, T.
- Kawai, S., 4'-iododiphenyl-4-carbimide as a reagent for alcohols. I. Corresponding urethanes from fatty unsaturated alcohols, A., 1159.
- higher unsaturated alcohols from certain drying oils, B., 870.
- selective solution of soap, B., 916.
- Kawai, S., and Tamura, K., 4'-iododiphenyl-4-carbimide as a reagent for alcohols. II. Corresponding urethanes derived from C_6 to C_{18} normal, saturated primary alcohols, A., 1159.
- Kawai, T., effect of cold-working on Young's modulus, A., 985.
- Kawakami, K., and Kimm, R., physiological rôle of carotene and allied substances, A., 1221.
- Kawakami, Y. See McBain, J. W.
- Kawamata, J., kaoliang starch as finishing material for textiles, B., 1106.
- Kawamura, Y., mechanism of coagulation of colloids by electrolytes, A., 692.
- Kawashima, K. See Matsumura, S.
- Kawashima, S., and Iwanaga, Y., effect of vagosplanchnicotomy on the threshold of sugar excretion, A., 812.
- Kaya, S., and Kussmann, A., magnetic properties of nickel-manganese alloys, A., 141.
- Kaya, T. See Miyamoto, S.
- Kaye, G. See Griffiths, W. J.
- Kaye, G. W. C., and Higgins, W. F., thermal conductivity of a single crystal of bismuth in a transverse magnetic field, A., 143.
- Kayser, C., and Costa, A. E. y., hyperallantoinuria and the existence of an organo-vegetative centre for purine metabolism, A., 811.
- Kayser, C. See also Baars, E.
- Kayser, F., determination of protein in blood-serum, A., 943.
- Kayser, F. See also Broun, D.
- Kaziro, K., ursodeoxycholic acid. III., A., 89.
- Kaziro, K., and Taku, A., effect of adrenaline and cholic acid on excretion of creatinine, A., 820.
- Kaziro, K., and Tsuji, K., stimulating action of bile acids on pancreatic lipase, and their hæmolytic action, A., 1216.
- K'Burg, R. B. See Neville, H. A.
- Keane, J. See Ryan, H.
- Kearsley, A. R. V., means for separating solid particles from combustion gases, (P.), B., 4, 598.
- Keast, (Miss) A. M. See Ireton, H. J. C.
- Kedrov-Sichman. See Kedrov-Zikhman.
- Kedrov-Zikhman, O. K., influence of lime in phosphoric acid mobilisation of soil, B., 73.
- effect of peat and phosphorite on the yield and composition of summer wheat and vetch, B., 922.
- Keebler, P. T. See Bergquist, H.
- Keefer, H., lecture experiment with liquid oxygen, A., 1396.
- Keen, A. W. See Morgan & Wright.
- Keen, B. A., "single value" soil properties; significance of certain soil constants. IV. Technique of the "box" experiment, B., 875.
- Keen, B. A., and Blair, G. W. S., plastometric studies of soil and clay pastes, B., 28.
- Keen, B. A., and Schofield, K. R., formation of streamers in sedimentation, A., 1114.
- Keenan, G. L., and Wildman, J. D., crystalline globulin of banana seeds, A., 1323.
- Keenan, G. L. See also Wilson, J. B.
- Keene, A. D. See Westinghouse Electric & Manuf. Co.
- Keene, E. W. W., filtering apparatus, (P.), B., 444.
- Keep, F. E., chrysotile asbestos deposits of Shabani, S. Rhodesia, A., 510.
- Keese, H. See Blanck, E.
- Keeser, E., rotation dispersion of optically active substances, A., 1095.
- Keeser, E., and Keeser, J., importance of sublimation for pharmacological investigation, A., 386.
- Keeser, J. See Keeser, E.
- Keesom, W. H., experimental basis of the international scale of temperature so far as concerns low temperatures, A., 299.
- Keesom, W. H., and Bijl, A., thermal expansion of Jena glass 16 III, B., 419.
- Keesom, W. H., and Ende, J. N. van den, resistance thermometry at the temperatures of liquid helium, A., 405.
- specific heat of solid substances at the temperatures obtainable with the aid of liquid helium. II. Measurements of the at. heats of lead and of bismuth, A., 677.
- Keesom, W. H., Horst, (Miss) H. van der, and Jansen, (Miss) A. F. J., normal b. p. of oxygen, A., 403.
- Keesom, W. H., and Iiterbeek, A. van, determination of the ratio of the specific heats (C_p/C_v) of helium gas at the b. p. of oxygen by means of the velocity of sound, A., 1103.
- Keesom, W. H., and Mooy, H. H., crystal structure of krypton, A., 983, 1098.
- atomic diameters of the rare gases, A., 1233.
- Keesom, W. H., Weber, S., and Nørgaard, G., vapour-pressure curve of liquid helium, A., 145.
- Keesom, W. H., Weber, S., and Schmidt, G., vapour-pressure curve of liquid helium. II., A., 283.
- Keesom, W. H. See also Borelius, G., De Smedt, J., and Vegard, L.
- Keffler, L. J. P., calorimetric researches. IV. Necessity of adopting a second calorimetric standard for bomb calorimetry; heat of combustion of the proposed standard: salicylic acid, A., 702.
- thermochemical researches on geometrical isomerides. II. Structure of oleic and elaidic acids, A., 703.
- purity of oxygen from electrolytic source, A., 722.
- calorimetric researches. III. Technique for adiabatic bomb calorimetry of high precision, A., 884.
- calorimetric researches. I. Preliminary studies on oleic and elaidic acids and esters from a comparison of their heats of combustion, A., 997.
- Kegel, W., carbonisation of wool, B., 278.
- Kehl, W. See Karrer, P.
- Keigueloukis, L. See Appellius, W.
- Keil, F. See Skita, A.
- Keil, W., constitution of anserine. II., A., 617.
- formation of pyrrolidine from halogenobutylphthalimides, A., 1045.
- Keilholz, W. See Plücker, W.
- Keilin, D., cytochrome and intracellular oxidase, A., 1215.
- Keilling, J. See Guittenneau, G.

- Keim, R. See Ruff, O.
- Keimatsu, S., and Hirano, I., synthesis of trihydroxymethyl-anthraquinone derivatives. IV. Synthesis of 1:5:8-trihydroxy-2-methylantraquinone, A., 1588.
- Keimatsu, S., Hirano, I., and Yoshimi, J., synthesis of trihydroxymethylantraquinone. V. 1:5:8-Trihydroxy-4-methylantraquinone, A., 1588.
- Keiser, B., hydroxylated sulphonation product, (P.), B., 519.
- Keith, J. C., operating experiences with a large [Canadian water] filter plant, B., 219.
- Keith, N. M., Whelan, M., and Bannick, E. G., action and excretion of nitrates, A., 639.
- Kellaway, C. H., Freeman, M., and Williams, F. E., fractionation of Australian snake venoms. I. Venom of death adder (*Acanthophis antarcticus*), A., 364.
- Kellaway, C. H., and Thomson, D. F., venom of the snake *Pseudechis Australis*, A., 1609.
- Kelleher, J., and Harper Electric Furnace Corporation, [carbonaceous] electrical resistor, conductor, etc., (P.), B., 428.
- Kelleher, J. See also Fitzgerald, F. A. J.
- Keller, A. See Nehring, K., and Scholl, R.
- Keller, A. V., [production of urea-formaldehyde] synthetic resin, (P.), B., 431.
- manufacture of resinous plastic material [by dry process], (P.), B., 727.
- Keller, A. V. See also Taylor, J.
- Keller, C. H. See Minerals Separation, Ltd.
- Keller, F., vegetative trials of various forms of nitrogen [fertiliser], B., 258.
- Keller, F. See also Gen. Aniline Works, Inc., and Truninger, E.
- Keller, G., and Akt.-Ges. Brown, Boveri & Co., non-oxidising [electric] heating furnace, (P.), B., 152.
- Keller, K. See Gen. Aniline Works, Inc., and Gluud, W.
- Keller, M. See Kaufmann, H. P.
- Keller, M. O. See Heath, S. B.
- Keller, R., production of acid by the stomach, A., 104.
- Kellermann, K., determination of refractive indices for X-rays, A., 279.
- Kellermann, K., and Bender, E., flotation with xanthates, B., 867.
- Kellett, E. G. See Chattaway, F. D.
- Kelley, F. C. See Brit. Thomson-Houston Co., Ltd.
- Kelley, K. K., Parks, G. S., and Huffman, H. M., method for extrapolating specific heat curves of organic compounds below the temperatures of liquid air, A., 24.
- Kelley, W., and Filtrol Co. of California, production of edible oils from crude cottonseed oil, (P.), B., 1037.
- Kelley, W. P., determination of the base-exchange capacity of soils, B., 341.
- Kelley, W. V. D., colour photography, (P.), B., 1047, 1092.
- Kellner, G. W., ionisation potential of atomic configurations with two electrons, A., 267.
- Kellog, J. L., and Warren-Teed Seed Co., treatment of seeds to secure uniform germination, (P.), B., 1083.
- Kellogg Co., and McKay, E. H., production of puffed, popped, or expanded cereal food products, (P.), B., 792.
- Kellogg Co. See also Wilder, H. K.
- Kellström, G., wave-length determinations in the L series of the elements from copper to calcium with the plane-grating spectrograph, A., 4.
- Kelly, A., production of sodium metaborate, (P.), B., 508.
- Kelly, C. I., lubricating oils: carbon residue estimation; the Ramsbottom method, B., 542.
- analysis and testing [of petroleum products], B., 699.
- Kelly, J. W. See Black, O. F., and Eggleston, W. W.
- Kelly, M. See Wilson, J. R.
- Kelly, T. D., and Leavey, G. E., electric furnaces [heated by direct current], (P.), B., 566.
- Kelsen, E., production of metal sheets by electrolytic means, (P.), B., 995.
- electrolytic manufacture of metal sheets and tubes, (P.), B., 1159.
- Kelsey, C. H. See Brit. Thomson-Houston Co., Ltd.
- Kelch, A. K. See Shonle, H. A.
- Kelvinator Corporation, and Erbach, F. R., refrigerating apparatus, (P.), B., 846.
- Kemble, E. C., and Rieke, F. F., interaction between excited and unexcited hydrogen atoms at large distances, A., 1232.
- Keményfi, G. See Jendrassik, A.
- Kemet Laboratories Co., Inc. See Cooper, H. S.
- Kemikal, Inc., and Mellanoff, I. S., production of alkaline or alkaline-earth salts of oxalic acid and saturated monobasic fatty acids, (P.), B., 13*.
- production of plastics and elastic substances, (P.), B., 111*.
- Kemmer, H., utilising waste heat for refrigerating purposes, (P.), B., 537.
- Kemmer, H., and Bauer, G., importance of benzol recovery for the German gas industry, B., 749.
- Kemmerer, A. R. See Elvehjem, C. A., and Hart, E. B.
- Kemmerer, G. See Cady, H. P.
- Kemmerer, G. I. See Hurd, L. C.
- Kemmerich, W. E., gradual production of gases [e.g., chlorine], (P.), B., 905.
- Kemp, A. R., and Western Electric Co., Inc., plastic [insulating] composition, (P.), B., 869.
- Kemp, C. N., examination of coal and coke by X-rays, B., 88.
- Kemp, P., [lead-antimony] bearing metal, (P.), B., 915.
- Kemp, W. W., and Kemp Manufacturing Co., C. M., muffle furnace and method of operating same, (P.), B., 885.
- Kemp Manufacturing Co., C. M. See Kemp, W. W.
- Kempe Valk, S. H. van. See Heringa, G. C.
- Kemper, R. T., heat-insulating coverings, (P.), B., 1134.
- Kempf, L. W. See Aluminium, Ltd.
- Kempf, R., determination of degree of "chalking" of paints, B., 156.
- determination of the extent of "rubbing-off" of paints, B., 337.
- "chalking" [of paints]. II. Uses of the "stamping process" for testing chalking, B., 1119.
- Kempf, R. See also Maass, E.
- Kempkens, J. See Krings, W.
- Kempster, H. L. See Hogan, A. G.
- Kempter, F., manufacture of rubber solutions, (P.), B., 830.
- Kemula, W., action of ultra-violet light on aliphatic hydrocarbons, A., 887.
- polarographic studies with the dropping mercury cathode. XI. Overpotential of mercury deposited from mercuric salt solutions, A., 999.
- polarographic studies with the dropping mercury cathode. XIV. The discontinuities on the curves which are obtained with solutions of mercuric cyanide, A., 1254.
- Kendall, E. C., McKenzie, B. F., and Mason, H. L., glutathione. I. Preparation in crystalline form; identification, A., 113.
- glutathione. III. Structure of glutathione, A., 945.
- glutathione. IV. Determination of structure, A., 1299.
- Kendall, F. E. See Heidelberger, M.
- Kendall, S. W., proofing cellulosic, animal, and other substances against insects, animals, and organisms, (P.), B., 140*.
- Kendrick, H. B., control of vertical retorts [for continuous carbonisation], B., 592.
- Kennard, E. H., quantum mechanics of an electron or other particle, A., 838.
- Kennaway, E. L., cancer-producing substances, A., 807.
- Kennedy, A. M. See Lloyd, S. J.
- Kennedy, D. J., treatment of coffee, (P.), B., 347, 438.
- Kennedy, G. F. See Hercules Powder Co.
- Kennedy, J. E., gyratory crushers, (P.), B., 124, 539*.
- crusher, (P.), B., 691.
- Kennedy, R. E. See Jones, G. W.
- Kennelly, V. C. E. See Grimes, M.
- Kenner, J. S. See Imperial Chem. Industries, Ltd., and Jones, E. C. S.
- Kenney, F. L. M., filter device, (P.), B., 746.
- Kenny, W. R. See McCrumb, F. R.
- Kent-Jones, D. W., and Amos, A. J., bacteriology of wheat and flour, B., 583.
- Kenworthy, C. F., annealing furnaces, (P.), B., 913.
- Kenyon, J., relations between the rotatory powers of the members of homologous series, A., 1094.
- Kenyon, J., Lipsecomb, A. G., and Phillips, H., interaction of ethyl l-mandelate and thionyl chloride in the presence of pyridine; mechanism of the replacement of hydroxyl by chlorine by means of thionyl chloride, A., 598.
- Kenyon, J., and Phillips, H., Walden inversion, A., 1157.
- optical instability of tervalent carbonium cations; transformation of l-phenylmethylcarbinyl dl-p-toluenesulphonate into optically inactive p-tolyl-a-phenylethylsulphone, A., 1177.
- Kenyon, J. See also Clarke, S. G., and Houssa, A. J. H.
- Kepfer, R. J. See Walton, J. H.

- Keramische Ind.-Bedarfs. Akt.-Ges. See Schaefer, W.
- Keresztessy, J. See Eddy, W. H.
- Kerckänen, G. See Sihvonen, V.
- Kerly, M., solubility of glycogen, A., 362.
- Kermack, W. O., and Smith, J. F., attempts to find new anti-malarials. V. Some piperidino- and piperazino-derivatives of quinoline, A., 1048.
- synthesis in the indole series. IV. Derivatives of 2:3-benz- γ -carboline, A., 1298.
- Kermack, W. O. See also Butler, J. A. V.
- Kern, E. F., and Jones, T. R., titration of hydrofluosilicic and hydrofluoboric acids, A., 880.
- addition agents in bismuth electrolytes, B., 719.
- Kern, R. See Wang, C. C.
- Kern, W. See Staudinger, H.
- Kernohan, R. B., and Lochhead, J. S., open-hearth furnace, (P.), B., 378.
- Kernohan, R. B., Lochhead, J. S., and Trinks, W., open-hearth furnace structure and its operations, (P.), B., 378.
- Kernot, J. C., Knaggs, J., and Speer, N. E., hydrolysis products of fish-muscle. I. Diamino-nitrogen of cod-muscle, A., 802.
- Korone, E. B. W. See Gardner, J. H.
- Kerppola, W., vitamins A and D. I.—VII., A., 380.
- Kerppola, W., and Leikola, E., bilirubin. II. Coloured oxidation stages of bilirubin and their behaviour with changes in hydrogen-ion concentration. III. Effect of radiated energy on bilirubin. IV. Solubility of bilirubin and of its coloured oxidation products, and their treatment with reducing and condensing agents. V. Properties of the bile pigments. VI. Detection and determination of bilirubin and of the coloured oxidation products, A., 1292.
- Kerppola, W. See also Leikola, E.
- Kerr, F. N. See Wieland, H.
- Kerr, H. J., and Fuller-Lehigh Co., [boiler] furnace and process of operating the same, (P.), B., 689.
- Kerr, P. F. See Ross, C. S., and Wherry, E. T.
- Kerr, S. E., inorganic composition of blood. III. Influence of serum on permeability of erythrocytes to potassium and sodium, A., 234.
- Kerr, W. J. See Althausen, T. L.
- Kerris, W., spark spectrum of iodine, A., 389, 830.
- Kerschbaum, H. See Auwers, O. von.
- Kershaw, A. See Hodgson, H. H.
- Kershaw, J. B. C., removal of dust and sulphur acids from power-station waste gases. I. Methods of separation in actual use. II. Methods and apparatus for gas purification employed in the chemical and metallurgical industries. III. Recent patents and processes for cleaning chimney gases, B., 305.
- Kerstein, J., manufacture of phosphoric acid, (P.), B., 187.
- Kersten, M. See Becker, R.
- Kertész, Z. I., acidity optimum of yeast hexosediphosphatase, A., 1620.
- analysis of Sarinas natural gas, B., 495.
- Kertész, Z. I. See also Doby, G. von.
- Kerti, F., effect of atropine on respiratory metabolism, A., 370.
- Kešans, A., separation of phosphoric acid as bismuth phosphate in quantitative analysis, A., 1543.
- Kesselring, I. See Wagner, Hans.
- Kessler, J. J., manufacture of an indurated porous object, (P.), B., 318.
- Kessler, J. M., and Helfrich, O. B., ether-alcohol esters of fatty acids, (P.), B., 939.
- Kessler, R., revolving-drum furnace for roasting zinc blende and other sulphide ores, (P.), B., 196.
- Kessler, W., *Oleum deelineæ* [dec oil], B., 850.
- Kesten, H. D., saponin hemolysis, A., 802.
- Kethel, R. J. B., magnesite: its application in assaying, B., 912.
- Kettering, C. F., Shutts, L. W., and Andrews, D. H., representation of the dynamic properties of molecules by mechanical models, A., 1349.
- Kettle, S., oil analysis, B., 155.
- Keuneecke, E. [with Mayer, Assmann, and Lehrer, E.], nickel-molybdenum mixed catalyst in ammonia synthesis, A., 1330.
- Keussler, V. von, absorption of the fine structure of the H_{α} line in excited hydrogen, A., 1487.
- Keve, E., spectrophotometric determination, in white light, of concentration of solutions of coloured substances, A., 1395.
- Keyes, D. B. See King, E. P., and Swann, S.
- Keyes, F. G., and Kirkwood, J. G., dielectric constant of carbon dioxide as a function of temperature and density, A., 1347.
- Keyes, H. E., innovations in copper leaching employing ferric sulphate-sulphuric acid, B., 1064.
- Keys, D. A., and Heard, J. F., striated discharge, A., 971.
- Keystone Watch Case Corporation. See Davis, A. B.
- Kharasch, M. S., and Isbell, H. S., organic gold compounds. I. Aurous chloride carbonyl; method of linking carbon to carbon, A., 1277.
- Kharichkov, V., and Vaganova, E., composition of soya beans under the conditions prevailing in the middle Volga district, A., 1323.
- Khavanov, I. M. See Deryagin, B. V.
- Khera, I. D. See Aggarwal, J. S.
- Khesin, I. See Dobryanski, A.
- Khizh, B. A. See Budnikov, P. P.
- Kholevo, N. A., nitration of trimethylbenzenes and properties of their nitro-derivatives, B., 1102.
- Khouvine, (Mme.) Y., Aubel, E., and Chevillard, L., conversion of pyruvic into lactic acid in the liver, A., 245, 951, 1312.
- action of sodium fluoride on the transformation of pyruvic acid into lactic acid [by liver], A., 1210.
- Kiang, P. C., calcium in the sera of rabbits under certain experimental pathological conditions, A., 1059.
- Kichlo, P. K., first spark spectrum of xenon, A., 1329.
- Kick, C. H. See Hamilton, T. S.
- Kida, Y., utilisation of natural aluminium phosphate on the Pacific coast, B., 142.
- fertilising effects of sodium nitrate in paddy fields, B., 921.
- utilisation of natural aluminium phosphate, B., 922.
- manurial effects of pyro- and meta-phosphates, B., 923.
- Kida, Y. See also Shikata, E.
- Kidani, Y., crystallographic investigation of some mechanical properties of metals. I. and II., A., 1101.
- Kidd, F., and West, C., physiology of fruit. I. Changes in respiratory activity of apples during senescence at different temperatures, A., 381.
- gas storage of fruit. II., B., 300.
- Kidde & Co., Inc., W., and Grant, H. C., jun., [visual] detection of suspended matter in fluids, (P.), B., 539.
- Kidokoro, T., and Shirane, G., coal properties and its applications, B., 696.
- Kieffer, A. P. See Haekspill, L.
- Kieffer, R. See Heymann, E.
- Kielbasinski, S., toxicity of arsenobenzene compounds, A., 370.
- Kielhöfer, E., lead content of must and wine from grapes treated with insecticide containing lead, B., 343.
- composition of musts and wines of the year 1927 from different varieties of apple and pear of the Moselle region, B., 344.
- Kiemstedt, H., detection and determination of lead in "ethyl" petrol, B., 229.
- Kienle, R. H., formation of synthetic resins, B., 726.
- Kienle, R. H., and Adams, L. V., mechanism of baking process of oil varnishes, B., 110.
- Kienle, R. H., and Hovey, A. G., polyhydric alcohol-polybasic acid reaction. II. Ethylene glycol-phthalic anhydride, A., 1434.
- Kienle, R. H. See also Brit. Thomson-Houston Co., Ltd.
- Kienzl, and Nagl, determination of the strength of soda-cellulose, B., 235.
- Kieper, K., preparation of ammonium chloride by reaction between ammonium sulphate and common salt, B., 238.
- Kiesel, A., quinic acid as metabolic product in the young shoots of *Picea excelsa*, A., 1626.
- Kiess, C. C., terms of the arc and spark spectra of chromium, A., 1488.
- Kiess, C. C., and De Bruin, T. L., arc spectrum of bromine and its structure, A., 829.
- Kiesselbach, T. A., field tests with treated seed corn [maize], B., 342.
- Kiessig, H., X-ray interference with thin films, A., 1334.
- Kievit, B., and Lindsay, G. A., fine structure in the X-ray absorption spectra of the K series of the elements calcium to gallium, A., 1333.
- Kifer, H. B., and Munsell, H. E., vitamin content of honey and honeycomb, B., 34.
- Kifer, H. B. See also Munsell, H. E.
- Kihara, G. See Tamura, K.
- Kihara, Y., carbohydrates in the bulb of *Allium scorodoprasum*, A., 121.
- Kikez, V. A. See Plotnikov, V. A.

- Kikuchi, K., effect of various anæsthetics on the blood- and urinary sugar of the rabbit, A., 813.
- Kikuchi, U. See Iimori, S.
- Kikutu, T. See Nishizawa, K.
- Kilbourn, F. L., jun., and Miller, G. W., rate of cure [vulcanisation] of reclaimed rubber. II, B., 250.
- Kiliani, H., sugars. IX., A., 453.
- Killefer, D. H., carbon dioxide preservation of meat and fish, B., 530.
- Killian, T. J., uniform positive column of an electric discharge in mercury vapour, A., 970.
- Killiches, W. See Heller, E.
- Killing, E., difference between adding pig iron in the solid and in the liquid state to the open-hearth furnace charge, B., 193.
- Killins, E. See Heraeus Ges.m.b.H., W. C.
- Kilp, W., use of potato flakes in the manufacture of alcohol, B., 436.
- Kilp, W. See also Lampe, B., and Lühder, E.
- Kilpatrick, M., and Kilpatrick, M., jun., dissociation constants of certain sulphonephthalein indicators, A., 292.
- Kilpatrick, M., jun., catalysis in the hydration of propionic anhydride, A., 713.
- Kilpatrick, M., jun., and Kilpatrick, (Miss) M. L., catalysis in the hydration of acetopropionic anhydride, A., 714.
- Kilpatrick, M., jun., and Rushton, J. H., rate of solution of magnesium in acids, A., 1530.
- Kilpatrick, M., jun. See also Kilpatrick, M.
- Kilpatrick, (Miss) M. L. See Kilpatrick, M., jun.
- Kilpi, S., and Puranen, U. H., reaction velocity and activity of hydrochloric acid in water-alcohol mixtures, A., 168.
- Kim, M. H., influence of the parathyroid hormone on liver function, A., 505.
- Kimball, R. K. See Allen, C. F. H.
- Kimbell, H. P., draught, temperature, and combustion conditions in commercial kilns burning building brick, B., 769.
- Kiminami, S., effect of various indole derivatives on the urochrome content of urine, A., 806.
- Kimm, R. See Kawakami, K.
- Kimmelstiel, L., [attempted] production of antitoxin from diphtheria toxin under the influence of trypsin, A., 503.
- Kimmelstiel, P. See Schmitz, E.
- Kimoto, T. See Kotake, M.
- Kimura, K., lactic acid metabolism in the muscles in cases of kidney damage, A., 1469.
- changes in the exchange of material between blood and tissues effected by over-ventilation in normal and pathological conditions of the tissues, A., 1606.
- Kimura, K., Abe, S., and Yamaguchi, T., fluid exchange. VIII. Fluid and gas exchange in diabetes insipidus, A., 1310.
- Kimura, K., and Kato, K., time relationships of the resynthesis of lactic acid after muscular work, A., 1614.
- Kimura, S., preparation of thymol from piperitone, A., 1294.
- reduction of piperitone with aluminium amalgam, A., 1294.
- Kimura, S., and Namikawa, N., sp. gr. and thermal [volume] expansion of the rubber-sulphur system, B., 250.
- Kimura, W., isolation of erucic acid, A., 322.
- the thiocyanogen value and its application; new method for determining mixtures of fats, B., 247.
- thiocyanates of unsaturated fatty acids, B., 429.
- application of the thiocyanogen value. IV. Analysis of oils containing linolenic acid; composition of soya-bean oil, B., 996.
- application of the thiocyanogen value. IV. Analysis of oils containing linolenic acid. I. Composition of chrysalis oil, B., 1037.
- Kimura, Y., urine of cancer rats, A., 240.
- Kin, S., manufacture of artificial marble, (P.), B., 328.
- Kindermann, E., removal of the solvent from evaporators attached to absorption refrigerators working periodically, (P.), B., 169.
- Kindermann, H., production of artificial filaments, fibres, bands, sheets, films, etc., of a high lustre from aqueous cellulose solutions, (P.), B., 236, 413.
- Kindscher, E., influence of [basic] pigments on ready-mixed paint, B., 337.
- Kindt, B., and Vollmer, H., pharmacological properties of β -naphthoquinoline and some of its derivatives, A., 497.
- King, A. See Wartenweiler, F.
- King, (Miss) A. M. See McBain, J. W.
- King, A. S., electric furnace spectrum of hafnium, A., 265.
- King, A. T., stoving and allied effects in [wool] hosiery, B., 859.
- King, A. T. See also Barritt, J., and Brit. Res. Assoc. for the Woolen & Worsted Industries.
- King, C. G. See Averill, H. P., Grettie, D. P., McKinnis, R. B., Menten, M. L., Murray, D. R. P., and Sipple, H. L.
- King, C. R. See Klein, L.
- King, C. V., and Griswold, F. L., silver ion catalysis of persulphate oxidations. V. Quantitative study of the oxidation of ammonia, A., 713.
- King, C. V., and Jette, E., oxidation of iodide ion by persulphate ion. III. Iodometric determination of persulphates, A., 441.
- King, C. V. See also Jacobs, M. B.
- King, E. J., colorimetric determination of silica, A., 1486.
- King, E. J., Baumgartner, L., and Page, I. H., glutathione content of blood of psychopathic patients, A., 493.
- King, E. J. See also King, Hazel.
- King, E. P., Swann, S., jun., and Keyes, D. B., liquid partial oxidation. I. [Oxidation of acetaldehyde and ethylbenzene], A., 170.
- King, E. S. See Wilder, F. L.
- King, F. E., and Partington, J. R., measurements of sound-velocities in air, oxygen, and carbon dioxide at temperatures from 900° to 1200°, with special reference to the temperature coefficients of molecular heats, A., 676.
- King, F. G. See Chase, E. S.
- King, F. H., and Jamora, E. B., sucrose losses in crystallisers during cooling, B., 476.
- King, G., silicon esters and their application to the paint industry, B., 622.
- King, Harold, new synthesis of creatine and alacreatine, A., 1563.
- King, Harold, and Rutherford, G. V., titrimetric determination of primary arsenic acids, A., 1461.
- King, Harold. See also Anslow, W. K., and Gough, G. A. C.
- King, (Miss) Harriette. See Cox, G. J.
- King, Hazel, King, E. J., and Page, I. H., enzymic hydrolysis of lecithin, A., 1620.
- King, H. J. S., amines. III. Derivatives of cupric nitrite, A., 47.
- amines. IV. Cuprammine salts of monobasic acids, A., 1536.
- King, J., identification of apiole, B., 82.
- King, J. G., and Edgcombe, L. T., influence of metallic and other substances on coal during carbonisation, B., 647.
- King, P. E., and Sahasranam, A. R., absorption of tannic acid by cellulose acetate silk, B., 656.
- King, P. H., waterproof cellulosic material, (P.), B., 321.
- King, R. M. See Pearce, R. M.
- King, R. O. C. See Seddon, H. R.
- King, T. F., bituminous compositions, (P.), B., 178, 908*.
- King, W. A. See Poth, E. J.
- Kingcome, H. A. See Holmes, J.
- Kingman, F. E. T. See Garner, W. E.
- Kingsbury, P. C., corrosion problems in the rayon industry, B., 553.
- Kingsport Press, Inc. See Smith, W. F.
- Kinne, R. C. See Olin, H. L.
- Kinnersley, H. W., and Peters, R. A., carbohydrate metabolism in birds. II. Brain localisation of lactic acidosis in avitaminosis-B and its relation to the origin of symptoms, A., 963.
- localised lactic acidosis in brains of pigeons suffering from vitamin-B₁ deficiency, A., 963.
- Kino, K., derivatives of fatty acids; preparation of stearolic acid, A., 193.
- polymerisation of the methyl esters of the higher unsaturated acids of train oil, A., 577.
- polymerisation of the methyl esters of the higher unsaturated acids of train oil. II. Polymerised product, A., 741.
- polymerisation of the methyl esters of the higher unsaturated acids of train oil. III. Polymerised product. IV. cyclo-Butane ester formed by the double linking in a molecule, A., 1272.
- Kino, K. See also Mazume, T.
- Kinoshita, K., freezing of gels, A., 1518.
- Kinsella, E. See Brit. Celanese, Ltd.
- Kinsey, E. L., and Ellis, J. W., electrolytic dissociation of nitric acid as revealed by its infra-red absorption spectrum, A., 1370.
- Kinsey, M. E. See Adkins, H.
- Kinsley, C., [electromagnetic] testing of magnetisable bodies, (P.), B., 1162.
- Kinsman, S. T., fastness to light of lake colours, B., 51.
- Kinugasa, S., and Hashimoto, S., manufacture of waterproof fabrics, papers, etc., (P.), B., 759.

- Kinzel, A. B., and Electro Metallurgical Co., case-nitrification of steel, (P.), B., 197.
surface-hardened material and its production; case-hardening, (P.), B., 465.
- Kinzel, A. B. See also Electro Metallurgical Co.
- Kipp, H. A. See Menten, M. L.
- Kipphan, K. See Arens, H., and Trautz, M.
- Kipping, F. B., stereoisomeric 2:3:5:6-tetramethylpiperazines. I., A., 223.
- Kipping, F. S., and Short, J. F., organic derivatives of silicon. XLIII. Formation of tri- and tetra-phenylsilicane by action of sodium on triphenylsilyl chloride, A., 939.
- Kipping, F. S. See also Palmer, K. S., and Steele, A. R.
- Kirby, J. E. See Gilman, H.
- Kirby, M. R. See Dorman, Long & Co., Ltd.
- Kirchhof, F., vulcanisation [of rubber] without sulphur, B., 250.
spiral [molecular] model for rubber, B., 625.
- Kirchhof, H. See Schenck, M.
- Kirchhoff, R. See Gen. Aniline Works, Inc.
- Kirchner, C., apparatus for the production of oxygen, (P.), B., 189.
- Kirchner, F., intensity of electron interference, A., 269.
simple method for investigating structure of various substances by means of electron waves, A., 1082.
X-ray diagrams of thin celluloid films, A., 1098.
- Kirchstein, B., excitation of mercury by means of collisions with slower sodium ions, A., 511.
- Kireev, V. A., extension of Trouton's rule to the critical point, A., 143.
relation between heat of vaporisation and temperature of liquids, A., 533.
- Kirgakuho, T., action of formaldehyde on potassium ferrocyanide in aqueous solutions. I.—IV., A., 454.
- Kirita, K., gall-stone formation. IV. Influence of the functions of the autonomic nervous system on gall-stone formation. V. Formation of bilirubin-calcium stones, A., 1207.
- Kirtschenko, K. S., determination of "volume-weight" of soils by means of vaseline, B., 579.
- Kirk, E. W. See Brit. Celanese, Ltd.
- Kirk, P. L. See Dalton, J. B., Emerson, O. H., and Schmidt, C. L. A.
- Kirk, R. H. See Martinez, H.
- Kirkpatrick, H. A. See Du Mond, J. W. M.
- Kirkup, R. H., apparatus for pneumatic separation of materials, (P.), B., 1135.
- Kirkwood, J. G. See Keyes, F. G.
- Kirner, W. R., α -tetrahydrofurfuryl chloride and ethers, A., 1295.
- Kirner, W. R., and Richter, G. H., effect of structure of organic halides on their rate of reaction with inorganic halides. III. Effect of the phenylthiol, α - and β -naphthoxy groups, A., 83.
- Kirrmann, A., condensation of pyruvic acid with aliphatic aldehydes, A., 577.
synthesis of porphyrins, A., 1450.
- Kirrmann, A., and Grard, J., abnormal reaction of dihalogenated propylenes, A., 735.
abnormal reactions of propylene dihalides and their interpretation by the syntonio theory, A., 1400.
- Kirsanov, A. T., principles of liming [of soils], B., 580.
- Kirsanov, A. T. See also Sanotzki, E. I.
- Kirsanov, A. V. See Tschitschibabin, A. E.
- Kirsch, W. See Jantzon, H.
- Kirschbaum, E., fractional condensation of binary mixtures, A., 849.
- Kirschbraun, L., manufacture of bituminous emulsions, (P.), B., 133.
manufacture of aqueous [bitumen-pitch] dispersions, (P.), B., 133, 650.
bituminous composition and its manufacture, (P.), B., 498.
manufacture of [waterproofing] aqueous dispersions [of bitumens, etc.], (P.), B., 511.
- Kirschbraun, L., and Belknap, F. L., manufacture of asphalt, (P.), B., 47.
- Kirschbraun, L., and Flintkote Co., pavement, (P.), B., 771*.
- Kirschbraun, L. See also Bataafsche Petroleum Maats.
- Kirschfeld, L., and Sieverts, A., titanium and hydrogen, A., 161.
behaviour of vanadium and of vanadium-iron alloys towards hydrogen, A., 699.
- Kirschman, H. D., Wingfield, B., and Lucas, H. J., comparison method for determining ionisation constants with a quinhydrone reference electrode, A., 422.
- Kirsebom, G. N., reduction of metallic compounds and production of arsenates, (P.), B., 765.
- Kirst, W. See Gen. Aniline Works, Inc.
- Kirsten, G. See Heiduschka, A.
- Kirzon, B. See Weizmann, M.
- Kisch, B., precipitation of mercuric iodide in gels and in glycerol, A., 159.
differential analysis of heart poisons. VII. Calcium and strontium paradox. VIII. Action of bivalent cations on the contractility of the frog ventricle, A., 497.
blood-sugar in the hare, A., 944.
autocatalysts of the oxidation of adrenaline, A., 1036.
catalysis of the oxidation of dihydroxyphenylalanine by "omega" [the autocatalysing oxidation product of adrenaline], A., 1036.
specific colour reactions of adrenaline and tyrosine, A., 1053.
detection of phosphagen in the electric organ of *Torpedo*, A., 1464.
determination of carbamide in *Selachii*, A., 1464.
xanthhydrol method of determination of carbamide in animal fluids, A., 1466.
- Kisch, B., and Leibowitz, J., influence of "omega" and of benzoquinone on tissue respiration, A., 949.
catalysis of the oxidative decomposition of glycine by oxidation products ("omega") of adrenaline, A., 1170.
- Kischinewskaja, L. G. See Bogatsky, W. D.
- Kise, Y. See Matsumoto, K.
- Kisegawa, M. See Iwamoto, Y.
- Kiselev, V., and Sukhanov, N., causes of turbidity in processed drying oils, B., 777.
- Kishi, I., Raman spectra of nitric acid and aqueous solutions of certain nitrates, A., 663.
- Kishner, N., conversion of furfurylideneacetone into 1-methyl-2-furfurylcyclopropane, A., 479*.
- Kiss, A. von, and Bossanyi, I., neutral salt effect of the ferric-iodide ionic reaction, A., 1256.
- Kiss, S. A., distillate yields in cracking, B., 175.
- Kissel, A., causes of the beneficial effect of brown coal on the growth of crops, B., 877.
- Kissock, A., alloying molybdenum with iron and steel, (P.), B., 150.
manufacture of calcium molybdate, (P.), B., 766*, 946*.
- Kistiakovski, V. A., Baymakov, U. V., and Krotov, I. V., electrocrystallisation of metals. I. Structure of electrically deposited copper, A., 1381.
- Kistiakowsky, G. B., photochemical decomposition of nitrosyl chloride, A., 306.
photochemical hydrogen-oxygen reaction, A., 871.
- Kistiakowsky, G. B., and Lenher, S., gaseous oxidations. I. Homogeneous uncatalysed reaction between oxygen and acetylene, A., 1528.
- Kistiakowsky, G. B. See also Flosdorf, E. W., Hill, D. G., Jackson, W. F., and Taylor, G. B.
- Kistler, S. S., viscosity of gases, A., 535.
- Kistler, S. S. See also McBain, J. W.
- Kistner, H., regenerative chambers. II. Determination of the heat exchange and pressure losses with various grate arrangements, B., 1049.
- Kita, G., Mazuda, S., and Suzuka, T., viscose. XXXII. Effect of chlorination on cellulose, B., 758.
- Kita, G., Iwasaki, S., and Masuda, S., change of viscosity during ripening, and the spinning of viscose, B., 278.
- Kita, G., Nakashima, T., Ohora, S., and Murakami, J., viscose. XXXIII. Spinning experiments with viscose prepared from unaged alkali-cellulose, B., 412.
viscose. XXXI. Effect of caustic alkali on cellulose, B., 758.
- Kita, G., and Sakurada, I., oxidation of alkali-cellulose by ageing and its importance in the manufacture of artificial silk, B., 279*.
- Kitagawa, M., and Tomita, T., new basic compound in jack bean from which urea is split off by a liver enzyme, A., 121.
- Kitagawa, M., and Tomiyama, T., new amino-compound in the jack bean and a corresponding new enzyme. I., A., 384*.
- Kitahara, K. See Katagiri, H.
- Kitagorodski, I. I., devitrification of glass, B., 58.
acceleration of the melting of glass, B., 906.
- Kitamura, K., combined sugar in serum-albumin, egg-white, and peptone, B., 165.
- Kitasato, Z. See Goto, K., and Wieland, H.
- Kitazawa, K. See Kami, Y.
- Kitschkin, A. See Nametkin, S. S.

- Kittelberger, *W. W.* See Long, *J. S.*, and Schmutz, *F. C.*
- Kiuti, *M.*, Ochiai, *K.*, and Nishimura, *Y.*, Stark effect in oxygen, A., 650.
- Kiyohara, *T.*, and Taniuchi, *Y.*, influence of choline on glycogen mobilisation in the toad liver through adrenaline, A., 1069.
- Kiyohara, *T.* See also Taniuchi, *Y.*
- Klaar, *W. J.* See De Jong, *H. L. B.*
- Klaas, *R.* See Sands, *L.*
- Klaassens, *K. H.* See Backer, *H. J.*
- Kladischtschev, *D.*, reversible microdistillation apparatus, A., 884.
- Klages, *F. E. P.*, controlling the moisture content of paper, (P.), B., 814.
- Klaiber, *W. J.*, and Koppers Co., dehydration of gas, (P.), B., 358.
- Klamroth, *A.* See I. G. Farbenind. A.-G.
- Klander, *F.* See Blanck, *E.*
- Klanfer, *K.* See Feigl, *F.*, and Schindler, *W.*
- Clapp, relationship between soil reaction, distribution of meadow plants, type and yield of meadows, B., 735.
- Klapproth, *W.*, extraction of caffeine from coffee beans, (P.), B., 484.
- Klar, *M.*, production of white, crystalline lead acetate from pyro-ligneous acid, (P.), B., 324.
- Klarer, *W.* See Soc. of Chem. Ind. in Basle.
- Klarman, *M. E.*, activation and adsorption of rare gases by palladium (argon, neon, helium), A., 1505.
- Klason, *P.*, constitution of pine lignin. X. and XI. Synthesis of α -coniferaldehyde or its polymeric forms, A., 751.
- constitution of pine lignin. XII. Quantitative composition of the lignin in various plants, A., 1025.
- constitution of pine lignin. XIII. Separation of aldehydes and ketones by naphthylamine hydrochloride, A., 1418.
- constitution of pine lignin. XIV., A., 1418.
- Klatschin, *N.*, use of copper tubes in determination of elements in organic compounds, A., 1604.
- Klatschkin, *F. M.* See Tschernaiev, *I. I.*
- Klatschko, *L. L.* See Spitalski, *E. I.*
- Klatt, *F.* See Feist, *K.*
- Klaus, *K.*, action of radium and X-rays on the fat metabolism of cancer patients, A., 948.
- Klavehn, *W.* See Curtius, *T.*
- Kleberger, superphosphate mixtures [fertilisers], B., 579.
- Kleberger, and Rudel, *R.*, action of nitrogen, and nitrogenous fertilisers, B., 631.
- Kleberger, and Schrader, *T.*, values of sewage sludge as fertiliser, B., 162.
- Kleberger. See also Rudel, *R.*
- Kleeberg, *J.*, acetoacetic acid in the diabetic organism, A., 807.
- Kleeberg, *J.*, and Schlapp, *W.*, substances which produce uræmia, A., 947.
- Kleeberger, manuring and crop quality in root crops, B., 785.
- Kleeman, *R. D.*, derivation of equation of state of a mixture of substances from the equations of state of the constituents, A., 535.
- electron and radiation, A., 834.
- possible electron properties, A., 1231.
- mass action and the electronic configuration of atoms, A., 1340.
- electromagnetic radiation and properties of the electron, A., 1493.
- heat of formation and electronic properties of atoms, A., 1502.
- Kleiderer, *E. C.* See Shriner, *R. L.*
- Klein, *A.*, and Stigol, *M.*, dolphin oil, B., 956.
- Klein, *A. B.*, and Colour Snapshots (1928), Ltd., [tri-packs for] colour photography, (P.), B., 641.
- Klein, *A. B.* See also Baker, *T. T.*
- Klein, *A. S.*, hydration of pulp in beating, B., 52.
- chemistry and paper-making, B., 412.
- impregnation of wood during digestion in the pulping process, B., 857.
- Klein, *C. A.* See Cutler, *L. W.*
- Klein, *E.*, soluble coffee, (P.), B., 484.
- Klein, *F.*, and Weiss, *R.*, effect of synthalin on gaseous exchange, A., 369.
- Klein, *G.*, and Linser, *H.*, determination of æsculin by fluorescence measurements, A., 825.
- Klein, *H.*, and Amberson, *W. R.*, structure of dental enamel, A., 491.
- Klein, *H. G.*, examination of half-stuffs and paper with the quartz lamp, B., 899.
- Klein, *J. J.*, effect of massive doses of irradiated ergosterol, A., 1223.
- Klein, *L.*, King, *C. R.*, Mitchell, *T. F.*, Young, *O. E.*, Miller, *F. H.*, Barker, *L. M.*, and Ralston, *O. C.*, reducing and oxidising agents and lime consumption in flotation pulp, B., 148.
- Klein, *Mar.*, non-identity of the active substance of the placenta with the pituitary hormone, A., 1480.
- Klein, *Melitta*, and Ruth-Aldo Co., Inc., apparatus for spinning solutions of cellulose esters or ethers, (P.), B., 761*.
- Klein, *O.*, and Nonnenbruch, *W.*, blood-enzymes in uræmia, A., 1059.
- Klein, *Otto.* See Schaum, *K.*
- Klein, *R.* See Tammann, *G.*
- Klein, *R. H.*, determination of halogen in insoluble inorganic halides, A., 561.
- Klein, *W.*, Pfeiffer, *G.*, and Hermann, *G.*, storage of iodine in the thyroid gland, A., 1616.
- Kleine, *C. W. A.*, production of stable, homogenised, [milk- or cream-like] emulsions, (P.), B., 927.
- Kleinfeldt, *H. F.*, and Abbe Engineering Co., grinding or pulverisation of gummy, pasty, or viscous material, (P.), B., 399.
- Kleinfeller, *K.*, constitution of dimagnesium acetylenyl bromide, A., 76.
- Kleinicke, *T.* See Günther, *W.*
- Kleinmann, *H.*, and Stern, *K. G.*, proteases of animal tissues. I. Determination and purification of the protease of ox spleen; II. Physico-chemical behaviour of the protease of ox spleen; the protease of ox leucocytes, A., 1217.
- Kleinschmidt, *E.*, incorporation of material to be briquetted with a liquid building medium [by spraying nozzles], (P.), B., 94.
- Klekotka, *J. F.* See Finn, *A. N.*
- Klem, *G.*, determination of the quality of wood for pulp and cellulose, B., 984.
- Klema, *F.* See Rhenania-Kunheim Ver. Chem. Fabr. A.-G.
- Klemenc, *A.*, formation of carbamide in the system carbon dioxide-ammonia, and its relationship to that in the system carbon oxysulphide-ammonia, A., 1387.
- Klemenc, *A.*, and Hayek, *E.*, nitric acid. V. Action of nitric oxide on nitric acid; (a) the system up to *N*-nitric acid concentration in aqueous solution, A., 543.
- carbon monosulphide, A., 1387.
- Klemenc, *A.*, and Low, *M.*, comparative solubilities in water of dichlorobenzenes; method of determining the solubility of slightly soluble but very volatile substances, A., 1107.
- Klemenc, *A.*, and Patat, *F.*, reactions of photochemically excited oxygen, A., 554.
- atomic hydrogen. II. Behaviour of pentane in ultra-violet light and of its polymerisation products towards oxygen; influence of mercury, A., 1259.
- Klement, *R.*, composition of bone skeletal substance, A., 237.
- Klemm, *L.* See Voss, *W.*
- Klemm, *W.*, measurements with bi- and quadri-valent compounds of the rare earths. II. Classification of the rare earths based on periodic variations of the properties of their ions, A., 177.
- measurements with bi- and quadri-valent compounds of the rare earths. IV. Classification of the rare earths, A., 525.
- lattice energy and the combined state, A., 1357.
- Klemm, *W.*, Meisel, *K.*, and Vogel, *H. U. von*, rare-earth sulphides, A., 874.
- Klemm, *W.*, and Schülth, *W.*, measurements with bi- and quadri-valent compounds of the rare earths. III. Ytterbium dichloride, A., 177.
- Klemm, *W.* See also Fischer, *Werner.*
- Klemme, *D.* See Poe, *C. F.*
- Klemperer, *O.*, single scattering of single electrons, A., 128.
- Klempert, *W.* See Gluud, *W.*
- Klencke, *H.* See Metallbank & Metallurg. Ges. A.-G.
- Klenk, *E.*, cerebrosides. X. Sphingosine, A., 73.
- Klenk, *E.*, and Hürle, *R.*, cerebrosides. XI. Partial synthesis of kersin and observations on nervone, A., 1196.
- Klenk, *L.* See Grassmann, *W.*
- Klepsch, *W.*, manufacture of [sand] moulds [for casting iron], (P.), B., 1077*.
- Kletzien, *S. W. F.* See Steenbock, *H.*
- Klever, *E.*, calorimetric and X-ray investigations of dehydration process of hydrated alumina, A., 1375.
- Kleverkaus, *E.* See Saner, *E.*
- Kleweta, *F.* See Tafel, *V.*
- Kliefoth, *M.* See Storey, *O. W.*
- Kliegl, *A.*, Weng, *F.*, and West, *G.*, isomerism among 9-substituted fluorenes (?). III., A., 918, 1031.

- Kligerman, *I.*, motor oils from redistillation of mazout distillates from naphthenic-base crude oils, *B.*, 750.
- Kline, *G. M.*, rinsing pipettes, *A.*, 1550.
- Kline, *G. M.*, and Acree, *S. F.*, determination of aldose sugars by titrating with standard iodine and alkali, *A.*, 1560.
- Kline, *O. L.* See Hart, *E. B.*
- Kling, *A.*, and Lassieur, *A.*, hydrogen exponent of water, *A.*, 1520.
- Kling, *A. J.* See Florentin, *J. M. F. D.*
- Kling, *F. E.*, regenerative [open-hearth] furnace, (*P.*), *B.*, 63.
- Kling, *L.*, β -oxidation of propionic acid; formation of malonic acid, *A.*, 951.
- Kling, *M.*, results of soil experiments in the Rhine Palatinate especially regarding their root-soluble phosphate contents, *B.*, 578.
- Kling, *M.*, and Engels, *O.*, potash content of Palatinate soils and their appropriate fertiliser treatment, *B.*, 1042.
- Klinger, *P.*, determination of chromium in special steels, *B.*, 1069.
- Klinger, *P.*, and Fücke, *H.*, rapid determination of carbon in steel magnetically by means of Malmberg's carbometer, *B.*, 195.
- Klinger, *P.* See also Krupp A.-G., *F.*
- Klinghoffer, *S. S.* See Gross, *P.*
- Klingstedt, *F. W.* See Hägglund, *E.*
- Klinkenberg, *A.* See Reinders, *W.*
- Klinkhardt, *H.*, and Frankenburger, *W.*, photochemically sensitised oxidation of hydrogen at normal temperature, *A.*, 1004.
- Klinkhardt, *H.* See also Frankenburger, *W.*
- Klit, *A.* See Billmann, *E.*
- Kljatschkina, *B.* See Stuber, *E.*
- Klobusitzky, *D. von*, influence of hydrogen-ion concentration on the precipitation of serum-proteins by salts. III, *A.*, 1201.
- Klockmann, *R.* See Hahn, *F. L.*
- Knöckner-Werke Akt.-Ges. Abt. Mannstaedtwerke, rotary kiln for burning cement, (*P.*), *B.*, 715.
- Klöhn, *E.*, and Zahn & Co., G.m.b.H., calcining furnace and method of operating the same, (*P.*), *B.*, 400*.
- Klönne, *M.* See Beuthner, *K.*
- Kloneck, *A. J.*, electron-discharge device, (*P.*), *B.*, 428.
- Klopstein, *E. O.*, determination of ash [of flour] by the direct-weight method, *B.*, 836.
- Klose, *W.*, resistance to flow [of gas] in different parts of apparatus in the production of high vacua, *A.*, 848.
- Klotz, *J. L.*, reactions of 4-hydroxy-3-ethoxybenzaldehyde, *A.*, 916.
- Gluckow, *P.*, and Siebner, determination of small quantities of copper in materials [fabrics], *B.*, 811.
- Kluge, *H.* See Koenig, *W.*
- Klugh, *B. G.*, electrothermal production of phosphoric acid, *B.*, 55.
- comparative economics of coke and electric furnaces [for electrothermal production of phosphoric acid], *B.*, 416.
- Klugh, *B. G.* See also Federal Phosphorus Co.
- Klumpp, *E.*, and Meier, *H.*, pigment and oil, *B.*, 110.
- Klupt, *S.* See Kostyshev, *S.*
- Knaggs, *J.*, collagen; changes which collagen undergoes when treated with solutions of hydrochloric acid and sodium hydroxide, *A.*, 234.
- Knaggs, *J.* See also Kernot, *J. C.*
- Knapp, *F.* See Ruggli, *P.*
- Knapp, *W.*, action of phthaloyl chloride on phenyl methyl sulphide, *A.*, 1183.
- 5-thiofluoran. II. Action of phthaloyl chloride on *p*-bromoanisole and *p*-bromophenyl methyl sulphide, *A.*, 1296.
- Knappe, *S.* See Huttner, *K.*
- Knauer, *F.*, possibility of establishing the magnetic moments of free electrons, *A.*, 395.
- Knauer, *F.*, and Stern, *O.*, limit of accuracy of the cosine law of molecular radiation, *A.*, 397.
- Knaus, *H.*, standardisation of corpus luteum extracts, *A.*, 1221.
- Knaust, *W.*, iron and manganese hydroxide sols in relation to the black coating on rocks and the formation of laterite, *A.*, 1016.
- Kniesel, *R.*, and Bamag-Meguvin Akt.-Ges., filter, (*P.*), *B.*, 400*.
- Kniesel, *W. L.*, boiler compound, (*P.*), *B.*, 84.
- Knight, *B. C. J. G.*, unimolecular films of batyl alcohol, *A.*, 539.
- surface films of batyl, chimyl, and selachyl alcohols, *A.*, 852.
- oxidation-reduction studies in relation to bacterial growth. I. Oxidation-reduction potential of sterile meat broth. II. Method of poisoning the oxidation-reduction potential of bacteriological culture media, *A.*, 1319.
- Knight, *B. C. J. G.*, and Fildes, *P.*, oxidation-reduction studies in relation to bacterial growth. III. Positive limit of oxidation-reduction potential required for germination of *B. tetani* spores *in vitro*, *A.*, 1479.
- Knight, *C. T.*, ore[roasting] furnace, (*P.*), *B.*, 1158.
- Knight, *D. A.* See Rawdon, *H. S.*
- Knipp, *C. T.*, and Scheuerman, *L. N.*, "flash" in the after-glow of the electrodeless discharge with change of pressure, *A.*, 1.
- Knithakis, *E.* See Maignon, *F.*
- Knocke, *R.* See Gen. Aniline Works, Inc.
- Knoell, *H.* See Schwab, *G. M.*
- Knol, *K. S.* See Coster, *D.*
- Knoll Akt.-Ges. Chemische Fabrik, and Schmidt, *K. F.*, production of amines from organic acids and their anhydrides, (*P.*), *B.*, 939.
- Knoll & Co., and Schmidt, *K. F.*, manufacture of organic nitrogen compounds, (*P.*), *B.*, 409.
- Knopf, *E.* See Kuhn, *W.*
- Knorr, *A.* See I. G. Farbenind. A.-G.
- Knöth, *G. W. F. F.*, production of soldering mixtures [fluxes], (*P.*), *B.*, 199, 954*.
- Knowland, *R. G.*, Loveridge, *G. T.*, and Nashua Manufacturing Co., production of a wool finish on cotton goods, (*P.*), *B.*, 709.
- Knowles, *A. E.*, electrolytic apparatus [for production of oxygen and hydrogen], (*P.*), *B.*, 21, 775*, 1162.
- gas washer for electrolytic apparatus, (*P.*), *B.*, 776*.
- electrolytic apparatus [for electrolysis of water and collection of evolved gases], (*P.*), *B.*, 1117.
- Knowles, *A. S.*, and Tar & Petroleum Process Co., tunnel nozzle for rectangular coke ovens, (*P.*), *B.*, 852.
- Knowles, *A. S.* See also Cox, *T.*
- Knowles & Co. (Wooden Box), Ltd., *J.*, and Taylor, *H. J.*, kiln bottoms, (*P.*), *B.*, 690.
- Knox, *W. J., jun.* See Frolich, *P. K.*
- Knudsen, *M.*, radiometer pressure and coefficient of accommodation, *A.*, 1246.
- Knudsen, *R.* See Goldschmidt, *V. M.*
- Knudsen, *A.* See Marshall, *A. L.*
- Knunjan, *I. L.* See Tschitschibabin, *A. E.*
- Knupffer, *M.*, liquid and gaseous fuel burners, (*P.*), *B.*, 1141.
- Knuth, *E. C.* See Palm, *J. V. O.*
- Knuth, *H.* See Aokermann, *H.*
- Kny-Jones, *F. G.*, and Ward, *A. M.*, bivalence of carbon. III. Experiments on xanthohydrol, dixanthhydril ether, and xanthohydryl chloride, *A.*, 612.
- Koana, *T.*, examination of brewery products with ultra-violet light, *B.*, 527.
- Kobayashi, *H.*, enzymic hydrolysis of diphosphoglyceric acid, *A.*, 372.
- Kobayashi, *K.*, and Yamamoto, *Kenichi*, genesis of Japanese acid clay, *A.*, 316.
- Kobayashi, *K.*, Yamamoto, *Kenichi*, and Abe, *J.*, colour reaction of Japanese acid clay with carotene, *A.*, 268.
- Kobayashi, *K.*, Yamamoto, *Kenichi*, and Bito, *K.*, Japanese acid clay. IV. Determination of water, *A.*, 316.
- Kobayashi, *R.* See Tanaka, *Y.*
- Kobayashi, *Y.*, adsorption of a gas, *A.*, 150.
- Kobel, *M.*, and Scheuer, *M.*, carbohydrate metabolism in tobacco leaf; detection of methylglyoxal as an intermediate product in the metabolism of green leaves, *A.*, 258.
- Kobel, *M.* See also Neuberg, *C.*
- Kober, *S.* See Dingemans, *E.* and Laqueur, *E.*
- Kobliansky, *G. G.* See Lebedev, *S. V.*
- Kobosev, *N.*, and Nekrassov, *N. I.*, formation of free hydrogen atoms during the cathodic polarisation of metals, *A.*, 1254.
- Kobryner, *S.* See Jablczynski, *K.*
- Koch, *C. B.* See Snelling, *W. O.*
- Koch, *E. M.*, Koch, *F. C.*, and Lemon, *H. B.*, absorption spectra of cholesterol and ergosterol, *A.*, 257.
- Koch, *E. M.* See also Koch, *F. C.*
- Koch, *F.* See Schmitz, *E.*
- Koch, *F. C.*, modified Van Slyke amino-nitrogen apparatus, *A.*, 101.
- Koch, *F. C.*, Koch, *E. M.*, and Ragins, *I. K.*, fractionation of provitamin-D, *A.*, 256.
- Koch, *F. C.* See also Gallagher, *T. F.*, Koch, *E. M.*, and Tweedy, *W. R.*
- Koch, *F. K. V.*, solubility of silver halides in methyl and ethyl alcohols; normal potentials of halogens in methyl and ethyl alcohol, *A.*, 1107.

- Koch, *F. K. V.*, simple electrochemical method for the simultaneous determination of the constitution and equilibrium constant of complex ions in solution; application to complex silver ions, A., 1372.
solubility of silver iodide in solutions of alkali iodide in acetone, A., 1511.
interaction of molecules with the silver ion, A., 1526.
- Koch, *G. P.*, and Shell Oil Co., production of gasoline from cracked distillate, (P.), B., 702.
- Koch, *H.* See Nolte, *O.*
- Koch, *J.* See Loevenich, *J.*
- Koch, *L.* See Kalb, *G.*
- Koch, *P.* See Miehr, *W.*
- Koch, *R.* See Ledermann, *L.*
- Koch, *S.*, tellurium minerals of Hungary, A., 734.
- Koch, *S.* See also De Fényi, *I.*
- Koch, *W.*, light absorption and dispersion in phosphorescent alkali halides containing a known number of heavy metal ions, A., 273.
densities and specific heats of unit volumes of solutions of sodium, calcium, and magnesium chlorides at low and moderate temperatures, A., 992.
- Koch, *W.*, and Pohl, *R. W.*, absorption of light by alkali halide phosphors, A., 979.
- Koch, *W. W.*, and Smith, *G. F.*, construction of platinum wire chain for the Foulk chain hydrometer, B., 397.
- Kochendoerfer, *G.*, and Deutsche Gold- & Silberscheideanstalt vorm. Roessler, introduction of iodine into pyridine derivatives, (P.), B., 533*.
preparation of sulphur compounds of pyridine, (P.), B., 981.
- Kochheiser, *M. L.* See Goodyear Tire & Rubber Co.
- Kochi, *H.* See Tomoda, *Y.*
- Kochmann, *M.*, evaluation of the female sexual hormone. I. General method and calculation of results. II. Difference between rat and mouse units with the hormone dissolved in water and oil and its mode of action, A., 1221.
- Kochmann, *M.*, and Maier, *L.*, biochemistry of silicic acid. I. Influence of silicic acid on the body-weight of growing rats. II. Retention of silicic acid by rats. III. Influence of silicic acid on the elasticity of connective tissue, A., 1213.
- Kochs, *A.*, comparative economies of coke and electric furnaces [for electrothermal production of phosphoric acid], B., 416.
- Kocian, *V.* See Jirovec, *O.*
- Kockar, *M.* See Solaja, *B.*
- Koczás, *J. von*, ultra-violet absorption of inorganic salt solutions. I. Absorption of chlorides, A., 132.
ultra-violet absorption of inorganic salt solutions. II. Absorption of alkaline-earth halides, A., 661.
- Kodak Ltd., and Capstaff, *J. G.*, films for colour photography, (P.), B., 841.
- Kodak Ltd., Clarke, *H. T.*, and Malm, *C. J.*, manufacture of mixed esters of cellulose, (P.), B., 279.
manufacture of cellulose esters, (P.), B., 279*, 655.
- Kodak Ltd., Clarke, *H. T.*, Malm, *C. J.*, and Stinchfield, *R. L.*, manufacture of cellulose esters, (P.), B., 279.
- Kodak Ltd., Clarke, *H. T.*, and Waring, *C. E.*, production of keten, (P.), B., 452.
- Kodak Ltd., and Favour, *P.*, films [with filter mask] for use in colour photographic processes, (P.), B., 929.
- Kodak Ltd., and Hastings, *H. E.*, [lenticular] films for colour photography, (P.), B., 742.
- Kodak Ltd., and Hickman, *K. C. D.*, production of high vacua, (P.), B., 696.
- Kodak Ltd., and Lane, *G. T.*, manufacture of paper, (P.), B., 901.
- Kodak Ltd., and Lawrence, *J. H.*, [two-ply] photographic films or plates, (P.), B., 641.
- Kodak Ltd., and Wittel, *O.*, [embossing roller for lenticular] films for colour photography, (P.), B., 641.
- Kodak Ltd. See also Clarke, *H. T.*
- Kodama, *S.*, catalytic reduction of carbon monoxide at ordinary pressure. IV. Influence of beryllium oxide, magnesium oxide, zinc oxide, and cadmium on the cobalt-copper catalyst, A., 551.
catalytic reduction of carbon monoxide at ordinary pressure. I. Investigation of the catalysts by means of heating curves. II. Investigation of the influence of substances on the catalytic action of cobalt by means of heating curves, A., 551.
catalytic reduction of carbon monoxide at atmospheric pressure by titanium, zirconium, and cerium oxides, A., 1132.
- Kodama, *S.*, catalytic reduction of carbon monoxide at ordinary pressure. VI. Hydrocarbon-forming action of iron catalyst, A., 1531.
catalytic reduction of carbon monoxide at ordinary pressure. III. Production of liquid hydrocarbons with cobalt-copper-thoria catalyst, B., 271.
- Kodorna, *S.*, effect of intravenous injection of urethane on the secretion of adrenaline in cats, A., 1319.
- Köberle, *K.* See Grasselli Dyestuff Corp.
- Koebner, *M.*, constitution of artificial resins, B., 917.
- Koeck, *W.* See Paneth, *F.*
- Ködder, *G.* See Honcamp, *F.*
- Kögel, *G.*, luminescence microscope, A., 187.
photographic production of differentially tanned colloid images, (P.), B., 38.
preparing pictures from light-sensitive layers containing organic colloids, (P.), B., 84*.
preparation of light-sensitive layers by means of ferric salts, (P.), B., 303, 1048*.
- Kögl, *F.*, and Erxleben, *H.*, colouring matters of fungi. VIII. Red colouring matter of fly fungus [*Amanita muscaria*, L.], A., 606.
- Kögl, *F.*, Erxleben, *H.*, and Jänecke, *L.*, colouring matters of fungi. IX. Constitution of thelephoric acid, A., 1581.
- Kögl, *F.*, and Postovski, *G. J.*, the green product of metabolism of *Bacillus chlorophyllis*, A., 929.
- Koehler, *A.*, stabilisation of fermentation liquids, (P.), B., 261.
- Köhler, *E.* See Jung, *H.*, and Linck, *G.*
- Köhler, *K.*, desulphurisation [of pig iron] in the basic open-hearth furnace, B., 1068.
- Köhler, *O.* See I. G. Farbenind. A.-G.
- Köhler, *R.*, iodine content of waste water [from town sewage], B., 842.
- Koehler, *W.*, disintegration of [cellular] matter, (P.), B., 1008.
- Koehler, *Z.*, phosphorus-containing constituents of plants. V. Solubility of the phosphorus-containing constituents of rye embryos, A., 385.
- Köhnen, *E.*, filling body for absorption towers, etc., (P.), B., 171.
- Koehring Co. See Yone, *P. P.*
- Koeler, *L.*, and Raum, *H.*, precipitation of saponins by sterols, A., 782.
- Koelsch, *C. F.*, sulphur analogue of glyceric acid; β -thioglyceric acid, A., 745.
monophenyl ethers of glyceric acid, A., 1038.
reaction of sodium phenoxide with α -chloro- β -hydroxypropionic acid, A., 1289.
- Koelsch, *C. F.*, and McElvain, *S. M.*, reaction of magnesium ethyl bromide with epichlorohydrin, A., 59.
reaction of various Grignard reagents with epichlorohydrin; preparation of some new chlorohydrins, A., 736.
- Koelsch, *H.*, [apparatus for the] determination of the gas yield from coal, B., 542.
- König, *A.* See Huttig, *G. F.*
- Koenig, *Adolph*, and Wagner, *O. H.*, formation of hydrazine in the electrical degradation of ammonia, A., 44.
- König, *F.*, shaking table, A., 1266.
- König, *G.* See Windaus, *A.*
- Koenig, *H. T.*, Fischer, *O. A.*, Haffey, *E. F.*, Clampitt, *A. B.*, and Channing, *R. H., jun.*, flotation process [for complex ores], (P.), B., 332.
- Koenig, *H. T.* See also Lowe, *S. P.*
- König, *J.*, and Hasenbäumer, *J.*, determination of the fertiliser requirement of soils, B., 257.
- König, *J.*, and Kracht, *E.*, nature and significance of the volatile substances present in foodstuffs, B., 34.
- Koenig, *K.* See Grove, *E. W.*
- Koenig, *O.*, improvements in the chemical purification of potable water and the modern use of activated carbon and earths, B., 350.
- Koenig, *P.*, composition of soils of the Nile delta, B., 523.
- König, *T.* See Schmid, *R.*
- Koenig, *W.*, analyses of chewing-tobacco, B., 966.
- Koenig, *W.*, and Kluge, *H.*, detection of luminal [phenylethyl-barbituric acid] in urine, A., 1214.
- König, *Walter*, and Hamprecht, *G.*, action of ammonia on 3-hydroxythionaphthen, A., 1045.
- König, *Walter*. See also Stach, *H.*, and Niethammer, *H.*
- Königer, *R.* See Rosenhauer, *E.*
- Koepke, *H. G.*, and Standard Brands, Inc., centrifugal separator, (P.), B., 1050.

- Koepp & Co., R., and Badenhausen, T., manufacture of sodium formate, (P.), B., 556.
- Koepp, H., light and catalase, A., 1200.
- Koepp, P. See Gerngross, O.
- Köppel, P., and Wuensch, E., retting, decomposition, and degumming of vegetable materials to obtain long fibres or paper material, (P.), B., 320.
- Köppen, R. See Thiessen, P. A.
- Köplinger, H., preparation for removing or preventing boiler scale and other similar deposits, (P.), B., 493*.
- Körber, F., and Hashimoto, U., binary system bismuth-tellurium, A., 681.
- Koerner, O. See Thiessen, P. A.
- Koers, J. H., sulphur production and gas purification, B., 227.
- Koers, J. H., and Scheffer, F. E. C., binary systems. I. and II., A., 861, 1521.
- Köser, J. See Windaus, A.
- Koessler, K. K., Hanke, M. T., and Sheppard, M. S., production of histamine, tyramine, bronchospastic and arteriospastic substances in blood broth by pure cultures of micro-organisms, A., 115.
- Köster, W., changes in the properties of iron-nitrogen alloys by quenching and annealing below the A1 point, B., 421.
- nitrogen in technical iron, B., 715.
- nitrogen in technical iron. III. Precipitation of nitrogen and carbon from α -iron as an example of the decomposition of a doubly supersaturated solid solution, B., 1068.
- problem of ageing phenomena on the basis of recent research on iron alloys, B., 1070.
- Köster, W. See also Buchholtz, H.
- Koethen, F. L., and Acheson Graphite Co., lubricant, (P.), B., 1014.
- Koetschet, J., and Koetschet, P., odoriferous activity of the homovanillins, A., 1184.
- 4-hydroxy-5-methoxyisophthalaldehyde, A., 1184.
- Koetschet, J., Koetschet, P., and Viaud, P., oxidising power of chloroamines, A., 1451.
- Koetschet, P. See Koetschet, J.
- Koettnitz, J. P., coking of brown-coal tar pitch, B., 173.
- Koffer, L., Fischer, Robert, and Newesly, H., detection of saponins in medicine and food, B., 166.
- Koffer, L., and Hilbeck, H., capillary analysis and microchemistry; detection of small quantities of formaldehyde with dimethyl-dihydroresorcinol, A., 940.
- Kogan, A. I., determination of citric acid in the presence of some other organic acids, A., 743.
- Kogan, G., preparation of litmus paper, A., 56.
- evaluation of cresol-rosin soap solutions, B., 265.
- Kogan, J. M. See Voroshcov, N. N.
- Kogane, (Mlle.) M. See Alquier, J.
- Kogert, H. See Müller, Erich.
- Kohl, W., effect of irradiation on cathode-ray reflexion at aluminium and platinum surfaces and the reality of the positive and negative currents thereby produced, A., 1335.
- Kohlenveredlung Aktien-Gesellschaft, continuous gasification of granular or pulverulent material, such as pit coal, brown coal, coke, etc., (P.), B., 751.
- Kohlenveredlung Aktien-Gesellschaft, and Geissen, C., rotary furnaces more particularly adapted for low-temperature distillation, (P.), B., 977.
- Kohler, A. M. See Harter, I.
- Kohler, E. P., and Addinall, C. R., cyclic nitrones, A., 786.
- action of bases on $\alpha\beta$ -dibromoketones and related substances, A., 1436.
- Kohler, E. P., and Darling, S. F., cyclopropane series. XII. Nitrocyclopropanes, A., 341.
- cyclopropane series. XIII. New type of cyclopropene derivative, A., 933.
- Kohler, E. P., and Nygaard, E. M., reaction between highly-phenylated compounds and organic magnesium compounds, A., 1585.
- Kohler, E. P., and Richtmyer, N. K., isooxazoline oxides. IX. Reaction between triphenylisooxazoline oxide and organic magnesium compounds, A., 933.
- "machine" for analysis with Grignard reagents, A., 1458.
- Kohler, E. P., and Stone, J. F., highly phenylated aliphatic nitro-compounds, A., 464.
- Kohlhardt, G. See Schneek, A.
- Kohli, S. J., effect of surface conditions on heat transmission, B., 1049.
- Kohlmann, R., rapid cooling device, A., 1394.
- Kohlrausch, K. W. F., Raman spectra and molecular structure, A., 978.
- Kohlrausch, K. W. F. See also Dadiou, A.
- Kohlshütter, H. W., morphology of substances of high mol. wt. I. Fibre formation with polyoxymethylenes, A., 1408.
- Kohlshütter, V., from atom to structure, A., 289.
- principles of genetic development of material, A., 1536.
- Kohlshütter, V., and Lüthi, M., principles of genetic development of material. II. Course of chemical reactions in crystals. I. Compounds of copper, A., 1536.
- Kohlshütter, V., and Marti, J., principles of genetic development of material. I. Structural forms of calcium oxalate, A., 1536.
- Kohman, E. F., Eddy, W. H., and Zall, C., vitamins in canned foods. IX. Tomato products, B., 1089.
- Kohman, E. F., and Sanborn, N. H., acidity and corrosion in canned fruit, B., 789.
- Kohman, E. F. See also Kramer, M. M.
- Kohn, E. See Fuchs, K.
- Kohn, F. G., differentiation of cow's and goat's milk, B., 33.
- Kohn, M., and Fink, S., bromophenols. XXXV. Chlorination of *p*-aminophenol, A., 1176.
- Kohn, M., and Gurevitch, E., 2:5-dichloroquinol dimethyl ether, A., 1186.
- Kohn-Abrest, E., Villard, (Mlle.) H., and Capus, L., presence of thiocyanates in the human organism; *post-mortem* transformation of veronal, dial, and gardenal into cyanogen compounds; significance in toxicology, A., 369.
- Kohner, H. See Fajans, K.
- Kohno, T. See Tanemura, K.
- Kohnstamm & Co., Inc., H. See Phair, R. A.
- Kohorn, O. von (Kohorn & Co., O.), evaporator for cooling plants [refrigerators], (P.), B., 1009.
- Kohorn, O. von (Kohorn & Co., O.), and Perl, A., manufacture of artificial silk, (P.), B., 11.
- combined artificial channel and thread guide for artificial silk threads, (P.), B., 505.
- devices for winding artificial silk threads, (P.), B., 554.
- Kohorn, O. von, and Schupp, H., cleaning the nozzles in artificial silk spinning machines, (P.), B., 985.
- Kohorn & Co., O. See also Jäger, A., and Kohorn, O. von.
- Kohout, G. A., furnace [for solid fuel], (P.), B., 398.
- Koide, M. See Takei, S.
- Koidl, T., and Gorlich, F., manufacture of [stringed] bricks, (P.), B., 1154.
- Koizumi, Y. See Tamaru, S.
- Kojitsch, S. See Benrath, A.
- Kokatnur, V. R., manufacture of anhydrous soap gels, (P.), B., 569*.
- Kokin, A. J., dynamics of carbohydrates in fruits in the course of development and ripening on the tree, A., 965.
- Kokin, A. J. See also Matzkov, F. F.
- Kokina, S. I. See Matzkov, F. F.
- Koku-Kenkyujo, reducing the inflammability of hydrogen, (P.), B., 58.
- Kolb, L. J., and Gibbs, R. A., making laminated glass [containing layers of celluloid], (P.), B., 558.
- Kolb, L. J., Hackett, R. W., and Worrall, A. G., sealing of edges of laminated glass, (P.), B., 906.
- Kolb, L. J., and Worrall, A. G., manufacture of laminated glass, (P.), B., 906, 1030.
- Kolbach, P., importance of acidity in brewing processes, B., 527.
- Kolbach, P. See also Windisch, W.
- Kolbe, E. A., [inhibitor for] pickling baths for iron and steel, (P.), B., 197.
- Koldayev, B. M., and Altschuller, M. M., effect of quartz-lamp light on blood-enzymes, A., 491.
- Kolke, F., modern [lacquer] finishes, B., 1079.
- Kollath, R. See Ramsauer, C.
- Kollath, W., relationship of the water-soluble vitamins. II. Importance of alkaline hæmatin, the age of rats, and composition of diet in vitamin-B₁ deficiency, A., 963.
- Kolle, F., and Hjerlow, T., phyllyrin, A., 1561.
- Kolle, W., Streitwolf, K., Fehrlé, A., and Winthrop Chemical Co., preparation of benziminazolone-[5]-jarsinic acids, (P.), B., 349*.
- Kollek, L. See Straus, F.
- Koller, G., and Kandler, E., constitution of cetraric acid, A., 1592.
- Koller, G., and Passler, W., constitution of capraric acid, A., 1590.
- Koller, K., devices for improving the working of pressure gas producers, (P.), B., 852.

- Koller, L. R. See Brit. Thomson-Houston Co., Ltd.
 "Kolloidchemie" Studienges. m.b.H., Carpzow, J. B., March, M., Lenzmann, R., and Sanders, H., production of body colours, (P.), B., 277.
- Kolmer, E. See Pavelka, F.
- Kolnitz, H. von. See McClendon, J. F., and Remington, R. E.
- Kolodny, S. See Pincussen, L.
- Kolodziejska, Z., and Halber, W., cancer antigen, A., 1611.
- Kolosov, A. K., reproducibility and constancy of the Weston element accepted as international standard, A., 314.
- Kolozs, E., effect of reduction in atmospheric pressure on blood-coagulation and on the blood-platelets, A., 1202.
- Kolthoff, I. M., confusion in the expression of the so-called "hydrogen-ion concentration" of a solution and a review of Brönsted's conception of acidity and basicity, A., 698.
 ionic activity products and ionic activity constants, A., 861.
 cobalt thiocyanate reaction for the detection of cobalt and thiocyanate, A., 882.
 detection of copper and Feigl's rhodanine test for silver, A., 1011.
 indicator constants, A., 1120.
 conductometric titrations, A., 1142.
 colour reactions for magnesium, A., 1544.
- Kolthoff, I. M., Lauer, W. M., and Sunde, C. J., dichlorofluorescein as an adsorption indicator for the argentometric titration of chlorides, A., 50.
- Kolthoff, I. M., and Sandell, E. B., determination of chromium and vanadium after oxidation with potassium bromate; separate titration of chromate and vanadate in the same solution and application of the method in steel analysis, B., 666.
- Kolthoff, I. M., and Sarver, L. A., diphenylamine and diphenylbenzidine as reduction-oxidation indicators, A., 706.
- Kolthoff, I. M. See also Barber, H. H.
- Komagata, S., theory of electro-osmosis. I., A., 154.
- Komar, N. P., determination of acetone in air, B., 274.
- Komatsu, S., biochemical studies on the bamboo. I., A., 1324.
- Komatsu, S., and Amatatsu, R., catalytic action at high temperatures under high pressures. II. Catalytic hydrogenation of aromatic nitro-compounds, A., 1570.
- Komatsu, S., and Kurata, M., kakishibu. VI. Potassium hydroxide fusion of methylshibuol, A., 1590.
- Komatsu, S., and Masumoto, M., catalytic hydrogenation of simple and cyclic ethers, A., 1428.
- Komatsu, S., Sugino, K., and Hagiwara, M., catalytic action of reduced copper at high temperature and pressure, A., 1132.
- Komatsubara, I. See Izume, S.
- Komissarov, I. F. See Nekrassov, V. V.
- Komlev, L. See Nikitin, B.
- Kompanski, D. I., integral and theoretical heats of solution, A., 997.
- Komppa, G., [tricycylene series], A., 783.
- Komppa, G., and Wuorinen, J., formation of azide of samarium [and of other metals], A., 557.
- Kon, A. V. See Ushakov, S. N.
- Kon, G. A. R., receiver for vacuum distillation, A., 567.
 purification of some sensitive ketones, A., 1184.
- Kon, G. A. R., and Thakur, R. S., three-carbon system. XXV. Effect of the methyl group on the tautomerism of acids and ketones of the cyclopentane and cyclohexane series, A., 1582.
- Kon, G. A. R. See also Hugh, W. E.
- Kon, S. K., carbon:nitrogen ratio in the urine of rats deprived of one or both factors of the vitamin-B complex, A., 256.
- Kon, S. K., and Mayzner, M., antirachitic value of irradiated yeast, A., 964.
- Kondakov, I. L., autocatalysis, A., 1399.
- Kondakov, I. L., Balaš, F., and Vit, L., organo-metallic complexes, A., 200.
 metallo-organic complexes, A., 462.
- Kondo, H., and Kondo, T., the alkaloid coclaurine from *Cocculus laurifolius*, DC., A., 794.
- Kondo, H., and Marita, Z., constitution of dauricine, A., 1600.
- Kondo, H., and Ochiai, E., constitution of dihydrothebaccodine, dehydroxytetrahydrocodeine, and β -tetrahydrodecoxycodeine, A., 625.
- Kondo, J. See Sendo, M.
- Kondo, K., anthocyan and anthocyanidin. III. Methylation product of malvin, A., 1442.
- Kondo, M., and Okamura, T., physical properties of unpolished and polished rice grains. I. Hygroscopicity of unpolished and polished rice grains and of the husk. II. Drying of unpolished and polished rice grains and of the husk. III. Hardness of unpolished and polished rice grains during drying period, B., 345.
- Kondo, M. See also Okamura, T.
- Kondo, T., saponins; pharmacology of jegosaponin, an active component of *Styrax japonicus*, A., 1063.
 active constituent of "Hsi-sin" (*Rhizoma asari*, Sieboldi), A., 1627.
- Kondo, T. See also Kondo, H.
- Kondrasheva, S., analysis of gases emitted by glass, B., 59.
- Kondrat'ev, V., dissociation work of oxygen and sulphur, A., 526.
 carriers of some flame spectra, A., 1332.
- Kondrat'ev, V., and Leipunski, A. J., recombination spectra of halogens and the probability of molecular formation from the atoms, A., 2.
- Kondrat'ev, V. See also Bressler, S.
- Kondryev, N. V., and Suzi, A. K., conductivity of magnesium ethyl iodide in ethereal solution, A., 422.
- Kongehl, M. See Behre, A.
- Konikov, A. P., biophysical origin of the law of ionic antagonism, A., 1608.
- Konishi, K., and Matsuki, G., determination of effective phosphoric acid [in soils] by Neubauer's method, B., 474.
- Konn, W., physical and chemical properties of sugar in affination and decolorisation, B., 582.
 determination of polarisation, ash, alkalinity, p_H value, and colour of molasses with one weighing, B., 786.
- Konopieky, K., rapid determination of corrodibility, B., 561.
- Konopieky, K. See also Günther-Schulze, A., and Müller, W. J.
- Konopnicki, A., and Suszko, J., isoquinidine, A., 97, 353*.
- Konovalov, B. A. See Spitalski, E. I.
- Konovalov, J. N., manuring of fruit trees with lime, B., 209.
- Konrad, E., Bächle, O., and Signer, R., highly polymerised substances. XIX. Polymeric silicic esters, A., 461.
- Konstantov, S. V., iron ores near Kerch, Crimea, A., 1155.
- Konstgningsfabriks Aktiebolaget i Landskrona. See Aktieb. Kemiska Patent.
- Kontol Co. See Reddish, W. T.
- Konwiser, A. L. See Loeser, D.
- Koolhaas, D. R., chaulmoogra oil from the seeds of *Hydnocarpus heterophylla*, B., 292.
- Koop, H. See Eisenschmidt, W.
- Koop, R. See Jellinek, K.
- Kopaczewski, P. See Arciszewski, W.
- Kopecký, O., errors of weight and polarisation arising from the pulping of [sugar] beet, B., 634.
- Kopelowicz, B. J., and Kopelowiczowa, L., concretes or plastic masses comprising cement and sawdust, (P.), B., 61.
- Kopelowiczowa, L. See Kopelowicz, B. J.
- Koperina, A. W., nitrogenous compounds of tobacco smoke, A., 824.
- Kopfermann, H., and Ladenburg, R., anomalous dispersion of gases in the excited state. V. Negative dispersion in excited neon, A., 1487.
- Kopfermann, H., and Schweitzer, Hans, band system with diatomic carbon vapour, A., 510.
- Kopfermann, H. See also Ladenburg, R.
- Kopke, E. W., and Allen, F. L., method and apparatus for crystallisation, (P.), B., 746.
- Koplowitz, E., micro-determination of creatinine and creatine in blood, A., 1055.
- Kopp, D., Kowalski, A., Sagilun, A., and Semenov, N., ignition limits of the mixtures $2H_2 + O_2$ and $2CO + O_2$, A., 299.
- Kopp, E., Rumanian coriander oil, B., 120.
 Rumanian peppermint oil and the position of the peppermint oil industry in Rumania, B., 1046.
- Koppányi, T., and Liebermann, A., duration of action of drugs. I. Analgesics and hypnotics. II. Mydriatic actions of adrenaline and atropine, A., 1062.
- Koppel, D. See Lieboff, S. L.
- Koppelman, F., breakdown of liquid insulators, B., 566.
- Koppers, H., review of the Koppers "C.A.S." process as applied to British conditions, B., 271.
 annular kiln, (P.), B., 352.
 blast furnace, (P.), B., 669.
 production of coke and apparatus therefor, (P.), B., 1100.
- Koppers, H., and Koppers Development Corporation, coking process, (P.), B., 46.
 producer-gas process, (P.), B., 1101.

- Koppers Akt.-Ges., *H.* See Hansen, *C. J.*, Koppers Coke Oven Co., Ltd., Leyh, *E.*, and Totzek, *F.*
- Koppers Co., and Ackeren, *J. van*, coking retort ovens, (P.), B., 496.
- Koppers Co. See also Ackeren, *J. van*, Becker, *J.*, Cole, *S. S.*, Fulton, *R. R.*, Jacobsen, *D. L.*, Klaiber, *W. J.*, and Ramsburg, *C. J.*
- Koppers Coke Oven Co., Ltd., and Koppers Akt.-Ges., *H.*, coke ovens, (P.), B., 229.
- Koppers Development Corporation. See Koppers, *H.*
- Koppova, *A.* See Němec, *A.*
- Kopsch, *U.* See Harteck, *P.*
- Koptsheva, *E. V.* See Archangelski, *A. D.*
- Korczewski, *M.*, and Majewski, *F.*, effect of heavy application of phosphoric acid on the yield of oats, B., 386.
- Korczyński, *A.*, Reinholz, *A.*, and Schmidt, *E.*, application of nickel to certain reactions of organic chemistry, A., 303.
- Kordatzki, *W.* See Fiehe, *J.*, and Wulff, *P.*
- Korecký, *J.* See Quadrat, *O.*
- Koré, *F.* See Gen. Electric Co.
- Korelin, *M. N.*, obtaining peat [briquettes], (P.), B., 600.
- Korenchevsky, *V.*, influence of the hypophysis on metabolism, growth, and sexual organs of male rats and rabbits. II. Influence of extracts of hypophysis on the body-weight, weight of fat, of sexual organs, and of endocrine organs of rats, A., 821.
- Korenchevsky, *V.*, and Dennison, *M.*, effect of cryptorchidism and of castration on the chemical composition of rats, A., 1321.
- Korff, *S. A.*, and Stewart, *J. Q.*, sensitive method for determining refractive indices, A., 1014.
- Korff, *S. A.* See also Stewart, *J. Q.*
- Korn, testing crude pasteboard by its absorption of anthracene oil, B., 97.
- Korn, *A.*, mechanical theories in physics and chemistry, A., 1496.
- Kornfeld, *G.*, physical methods in the chemical laboratory. XII. Raman effect as an aid in investigating constitution, A., 1090.
- Kornfeld, *G.*, and Weegmann, *E.*, oxidation of sulphur dioxide in ultra-violet radiation, A., 1383.
- Kornfeld, *H.* See Ammermann, *E.*
- Kornhauser, *S. I.*, hæmatein, its advantages as a stain, A., 377.
- Korolev, *A. I.* See Rodionov, *W. M.*, and Tschitschibabin, *A. E.*
- Korpiun, *J.* See Hofmann, *K. A.*
- Korsakova, *M. P.*, mechanism of the reduction of nitrates [by bacteria]. II., A., 251.
- Korsakova, *M. P.*, and Lopatina, *G. B.*, mechanism of the reduction of nitrates [by bacteria]. I., A., 251.
- Korten, *E.* See Gen. Aniline Works, Inc.
- Korth, *B.* See Kremann, *R.*
- Kortschagin, *M.*, and Levitov, *M.*, use of sodium sulphite as fixing agent for acetaldehyde in surviving tissues and hearts, A., 1312.
- Kortüm, *G.*, physical methods in chemical laboratories. XI. Technique and application of rotation dispersion to the solution of chemical problems, A., 728.
- dispersion of optical rotation of amorphous systems, A., 1096.
- Korzhennovskii, *G. A.*, formation of *p*-hydroxybenzoic acid during the manufacture of salicylic acid, B., 360.
- Kosaka, *H.*, relationship between anthocyanin formation and growth in *Abutilon avicenna*, A., 506.
- Kosaka, *Y.*, thermal decomposition of coal-tar constituents. V. Reaction products of the thermal decomposition of toluene. VI. Reaction mechanism of the thermal decomposition of toluene, A., 332.
- Kosakevitch, *N. S.* See Kosakevitch, *P. P.*
- Kosakevitch, *P. P.*, and Ismailov, *N. A.*, adsorption influence, activity, and solvation in salt solutions, A., 1365.
- Kosakevitch, *P. P.*, and Kosakevitch, *N. S.*, capillary activity of organic substances in aqueous salt solutions, A., 1515.
- Koshevnikova, *A.* See Teplov, *J.*
- Koser, *H. C.* See Moore, *D. L. R.*
- Koshelkov, *P. N.*, influence of varying amounts of phosphates on the dynamics of soil processes, B., 922.
- Kosheverova, *E. P.* See Savinov, *B. G.*
- Koskoff, *Y. D.* See Himwich, *H. E.*
- Koskovski, *V.* See Dudley, *J.*
- Kostowski, *W.* See Jakób, *W. F.*
- Kosman, *O. M.* See Schukarev, *S. A.*
- Kosman, *S. K.* See Schukarev, *S. A.*
- Kosmath, *W.*, radon in the atmosphere, A., 1551.
- Kosmin, *N. P.* See Remitschenko, *M. S.*
- Kossel, *W.*, crystal growth, A., 1506.
- Kossiakov, *A. V.*, distribution of uric acid between plasma and erythrocytes, A., 358.
- distribution of uric acid in blood-plasma and corpuscles, and influence of acid and alkaline diets thereon, A., 1055.
- Kossovitch, *N.* See De La Rivière, *R. D.*
- Kostelitz, *O.* See Hüttig, *G. F.*
- Kosterlitz, *H.* See Petow, *H.*
- Kosting, *P. R.*, system nickel-iron-copper, B., 772.
- Kostuk, *E.*, oxidimetric determination of ethyl alcohol, B., 1087.
- Kostytchev, *C. P.*, and Kardo-Syssoeva, *E. K.*, daily course of photosynthesis with plants of Central Asia, A., 1625.
- Kostytchev, *S.*, detection of pyruvic acid in yeast fermentation, A., 501.
- fermentation in maceration juice, A., 642.
- Kostytchev, *S.*, and Berg, *V.*, alcoholic fermentation. XX. Action of poisons on living yeast, dried yeast, and maceration juice, A., 958.
- Kostytchev, *S.*, Gwaladse, *W.*, and Eliasberg, *P.*, formation of pyruvic acid in lactic acid fermentation, A., 960.
- Kostytchev, *S.*, and Klupt, *S.*, enzyme actions in filtered and dialysed maceration juice, A., 957.
- Koła, *J.*, qualitative reactions for pine oil, B., 675.
- Kota, *J.* See also Jilek, *A.*
- Kotake, *M.*, and Kimoto, *Y.*, fat from *Cypridina*, A., 1308.
- Kotake, *M.* See also Majima, *R.*
- Kotelnikov, *N.*, and Bass, *J.*, fractional peptisation of vegetable tan liquors, B., 433.
- Kothari, *D. S.*, Doppler effect in relation to atoms, A., 1077.
- Kothari, *D. S.* See also Majumdar, *R. C.*
- Kotlyarenko, *M. R.* See Kutzev, *S. S.*
- Kotscheschkov, *K. A.*, new type of simple organic derivatives of tin, A., 356.
- Kotschnaff, *N.*, action of morphine on the distribution of sugar in the intermediate phases during the period of digestion, A., 247.
- Kotterba, *J.*, drying of ceramic products, (P.), B., 768.
- Kotyukov, *I. I.*, theory of the meso-structure of organic compounds. III. Structural causes of optical activity. IV. Influence of ring formation on the molecular rotation, A., 1268.
- Kotyukov, *I. I.*, and Yakimov, *M. N.*, theory of the meso-structure of organic compounds. V. Combined influence of radicals on optical activity, A., 1268.
- Kotzebne, *M. H.*, gas and liquid contact apparatus, (P.), B., 1051.
- Kotzmann, *L.*, methods of determining humus [in soils], B., 253.
- rôle of humus in the absorption complex [in soils], B., 629.
- Koudelák, *F.*, production of benzene by cracking, B., 544.
- Kourtiakov, *N.*, dynamics of physical properties of soils in different cultural conditions, B., 576.
- Kovalenko, *M.* See Markman, *A.*
- Kovarik, *A. F.*, basis for computing the age of a radioactive mineral from the lead content, A., 1155, 1552.
- actino-uranium and the ratio of actinium to uranium in minerals, A., 1495.
- Kovarski, *L.*, tautomerism and related phenomena in the light of the electronic theory of valency, A., 1239.
- Kowalke, *O. L.* See Watson, *K. M.*
- Kowalski, *A.* See Kopp, *D.*
- Kowalski, *M.* See Malkowski, *S.*
- Kowalski, *W. von.* See Biesalski, *E.*
- Kownatzki, *A.* See Bodendorf, *K.*
- Koyama, *R.*, fats of Japanese birds. VIII., IX., and X., A., 362.
- Koyanagi, *K.*, nature of minerals in artificial melts of $2\text{CaO} \cdot \text{SiO}_2$ of $3\text{CaO} \cdot \text{SiO}_2$, and of $8\text{CaO} \cdot 2\text{SiO}_2 \cdot \text{Al}_2\text{O}_3$, B., 766.
- hydration of Portland cement; influence of monocalcium phosphate. I.—VII., B., 769, 906.
- why cannot aluminous cement and Portland cement be used as a mixture? B., 907.
- petrographic investigation of aluminous cements, B., 1154.
- Koza, *Y.*, experimental scurvy. VIII. Carbohydrate metabolism of guinea-pigs fed on a diet free from vitamin-C, A., 1321.
- Koželuh, *J.*, apparatus for heating liquids in tanks, (P.), B., 40.
- Kozeschkov, *K. A.* See Nesmejanov, *A. N.*
- Kozirev, *B. M.* See Gerasimov, *A. F.*
- Kozlov, *V. V.* See Ijinski, *M. A.*
- Kôzu, *S.*, and Watanabe, *W.*, distribution of rare elements in the Japanese islands, A., 188.
- Kozura, *K.*, lavulose of the blood and lymph, A., 1607.
- Krabbe, *W.* See Scheibler, *H.*
- Kracek, *F. C.*, polymorphism of potassium nitrate, A., 402.
- vapour pressures of solutions and the Ramsay-Young rule; application to the complete system water-ammonia, A., 680.

- Kracek, *F. C.*, cristobalite liquidus in alkali oxide-silica systems and heat of fusion of cristobalite, A., 700.
system sodium oxide-silica, A., 1121.
- Kracek, *F. C.*, Bowen, *N. L.*, and Morey, *G. W.*, system potassium metasilicate-silica, A., 162.
- Kracek, *F. C.*, and Gibson, *R. E.*, polymorphism of sodium sulphate. III. Dilatometer investigations, A., 281.
- Kracek, *F. C.*, and Ksanda, *C. J.*, polymorphism of sodium sulphate. IV. X-ray analysis, A., 1099.
- Kracek, *F. C.* See also Morey, *G. W.*
- Kracht, *E.* See König, *J.*
- Kracker, *H.* See Gen. Aniline Works, Inc.
- Krael, *J.* See Kapeller-Adler, *R.*
- Kraemer, *E. O.*, and Sears, *G. R.*, viscosity of dilute lyophilic dispersions, A., 692.
- Kraemer, *E. O.*, and Williamson, *R. V.*, internal friction and the structure of "solvated colloids," A., 156.
- Kraemer, *E. O.* See also Friedman, *L.*
- Kraemer, *G.* See Curtius, *T.*
- Kraemer, *W. L.*, Purdy, *A. C.*, and Metal Edge Filter Corporation, apparatus for producing [edge]-filter members, (P.), B., 694.
- Kränzlein, *G.*, and Samesreuther & Co., G.m.b.H., heat-exchange device, (P.), B., 798, 885.
- Kränzlein, *G.* See also Gen. Aniline Works, Inc., I. G. Farbenind. A.-G., and Samesreuther, *R.*
- Kraess, *A.* See Wislicenus, *H.*
- Krafka, *J., jun.*, endogenous uric acid and haematopoiesis. II. Haemolysis by phenylhydrazine hydrochloride, A., 634.
- Krah, *E.*, effect of saccharic acid on the Pasteur reaction, A., 806.
catalysis by heavy metals of cell fermentation, A., 814.
- Kraiczek, *R.*, and Sauerwald, *F.*, complex systems with iron. II. System chromium-carbon, A., 147.
- Krais, *P.*, determination of effect of light on dyes, A., 1260.
- Krais, *P.*, and Biltz, *K.*, determination of fat in washed wool, B., 650.
- Krais, *P.*, and Schleber, *V.*, detection of chemical damage of wool, B., 237.
- Krajčínovič, *M.*, products of the action of chlorosulphonic acid on butyryl chloride at the ordinary temperature, A., 1405.
analytical-chemical determination of the noxious influence of sulphur dioxide on vegetation, B., 116.
- Krakowiecki, *S.*, compounds of phosphorus pentachloride and pentabromide with carbon tetrachloride, A., 572.
- Krakowiecki, *S.* See also Milobedzki, *T.*
- Kral, *A.* See Stary, *Z.*
- Kral, *H.* See Kriz, *S.*
- Kralky, *O.* See Burgeni, *A.*
- Krall, *S.*, natural v. artificial ageing [of rubber], B., 70.
- Kramarova, *E. S.* See Kurchatov, *P. A.*
- Kramer, *B.* See Shear, *M. J.*
- Kramer, *E.* See Gen. Aniline Works, Inc., and Hartstoff-Metall A.-G.
- Kramer, *M. M.*, Boehm, *G.*, and Williams, *R. E.*, vitamin-A content of green and white leaves of market head lettuce, A., 118.
- Kramer, *M. M.*, Eddy, *W. H.*, and Kohman, *E. F.*, vitamins in canned foods. VIII. Home canning and commercial canning contrasted in their effect on vitamin values of pears, B., 34.
- Kramer, *M. M.* See also Potter, *M. T.*
- Kramer, *O.* See I. G. Farbenind. A.-G.
- Kramers, *H. A.*, paramagnetic rotation of the plane of polarisation in uniaxial rare-earth crystals, A., 401.
modern molecular theories, A., 1349.
- Kramers, *H. A.*, and Becquerel, *J.*, paramagnetic rotation of the plane of polarisation in crystals of tysonite and xenotime, A., 401.
- Kramers, *H. A.* See also Becquerel, *J.*
- Kramp, *L.* See Dobias, *A.*
- Kraner, *H. M.*, and Snyder, *R. A.*, apparatus for the determination of adsorbed air [in porcelain slip], B., 240.
- Kraney, *C. F.*, and Heinze Masehinenfabrik Akt.-Ges., C., dyeing machines, (P.), B., 815.
- Kranjčević, *M.* See Šolaja, *B.*
- Krantz, *H.*, and Krantz, *W.* (Krantz Söhne, *H.*), decatizing of textile fabrics, (P.), B., 321.
- Krantz, *H. J. M. C.*, safety device for centrifugal machines, (P.), B., 223.
- Krantz, *J. C.*, determination of iron in Basham's mixture, B., 639.
- Krantz, *J. C., jun.*, effect of certain hypoglycemic drugs on the growth of the seedlings of *Lupinus albus*, A., 1072.
acid-base equilibrium of tincture of digitalis, B., 585.
- Krantz, *J. C., jun.*, and Carr, *C. J.*, incompatibility between sodium salicylate and sodium bicarbonate, B., 216.
- Krantz, *J. C., jun.*, and Hartung, *W. H.*, amino-alcohols. IV. Potentiometric measurements of certain homologues of ephedrine, A., 935.
- Krantz, *W.* See Krantz, *H.*
- Krantz Söhne, *H.* See Krantz, *H.*
- Krase, *H. J.*, and Gaddy, *V. L.*, equilibria in the ammonium carbamate-carbamide-water-ammonia system, A., 1252.
- Krase, *H. J.*, Gaddy, *V. L.*, and Clark, *K. G.*, direct synthetic urea process, B., 403.
- Krase, *H. J.* See also Thompson, *J. G.*
- Krase, *N. W.*, solvent extraction in acetic acid production [from pyroligneous acid], B., 45.
- Krase, *N. W.*, and Goodman, *J. B.*, vapour pressure of toluene up to the critical temperature, A., 283.
- Krase, *N. W.*, and Mackey, *B. H.*, specific heats of gases at high pressures. I. Method and apparatus at room temperature, A., 403.
- Krase, *N. W.* See also Mackey, *B. H.*
- Krasilshchikov, *B. E.* See Benin, *G. S.*
- Krasnovski, *O. V.*, determination of alumina in aluminoborosilicates, A., 183.
- Krasnow, *F.*, and Rosen, *A. S.*, Myers-Wardell method for the determination of cholesterol, A., 1204.
- Krasnow, *F.* See also Mayers, *M. R.*
- Krassilnikov, *N. A.*, survival of dried yeast, A., 642.
- Krastelevski, *S.* See Nikolaiev, *V. J.*
- Krastev, *S.* See Balarev, *D.*
- Kratky, *A.*, production of green corundum [artificial emerald], (P.), B., 190.
- Kratky, *O.* See Eckling, *K.*, and Herzog, *R. O.*
- Kratz, *H.* See Magnus, *A.*
- Kratzert, *J.* See Miehr, *W.*
- Krauch, *E.* See Gen. Aniline Works, Inc.
- Krauer, *K.* See Soc. of Chem. Ind. in Basle.
- Kraus, *C. A.*, and Brown, *C. L.*, organic germanium compounds. III. Diphenylgermanium dihalides and diphenylgermanium imine, A., 1457.
organic germanium compounds. IV. Germanium diphenyl and octaphenylgermanopropane, A., 1602.
- Kraus, *C. A.*, and Bullard, *R. H.*, tin alkyl compounds. III. Tin trimethyl hydroxide, A., 200.
tin alkyl compounds. IV. Properties of the complex hydroxy-bromide (Me₃SnOH)₂Me₃SnBr, A., 1565.
- Kraus, *C. A.*, and Neal, *A. M.*, tin alkyl compounds. V. Action of tin sodium trimethyl on methylene chloride, A., 462.
- Kraus, *C. A.*, and Wooster, *C. B.*, organic germanium compounds. II. Triphenylgermanium derivatives and their reactions, A., 354.
- Kraus, *C. E.*, building cement or plaster, (P.), B., 328*.
- Kraus, *J.* See Edlbacher, *S.*
- Kraus, *O.* See Gossner, *G.*
- Krause, *A.* See Gen. Aniline Works, Inc.
- Krause, *A. C.*, and Yudkin, *A. M.*, chemical constitution of aqueous humour of the dog, A., 1465.
- Krause, *A. C.*, Yudkin, *A. M.*, Stevens, *M. A.*, Bunnell, *W. W.*, and Hughson, *D. T.*, influence of drugs on the transmission of arsenic into aqueous humor, A., 1061.
- Krause, *A. C.* See also Underhill, *F. P.*
- Krause, *E.*, relative firmness of element-organic union, A., 757.
- Krause, *E.*, and Dittmar, *P.*, auto-complex formation as probable cause of the unique position of thallium alkyl compounds, A., 1421.
valency problem of boron. V. Mol. wt. of the boron triaryls and certain of their additive compounds, A., 1457.
valency-chemical investigation of metal alkyls of the third group of the periodic system; subsidiary valency phenomena of aluminium aryls, A., 1602.
- Krause, *E.*, and Nobbe, *P.*, valency problem of boron. IV. Valency phenomena of boron in boron tribenzyl, tri-*p*-xylyl, and tri-*n*-aphthyl, A., 798.
- Krause, *E.*, and Schlöttig, *O.*, benzyl and phenylethyl compounds of lead, A., 1051.
- Krause, *E.*, and Weinberg, *K.*, organometallic compounds with tertiary alcohol radicals. I. *tert*-Butyl and *tert*-amyl compounds of tin, A., 462.
- Krause, *E. F.*, and Novoselov, *A. V.*, mechanical adsorption of molybdic anhydride in connexion with complex compound formation, A., 851.

- Krause, G. A., process for sterilising and oligo-dynamically activating substances [*e.g.*, water], (P.), B. 84.
 filtering and sterilising of liquids, (P.), B. 350.
 sterilisation of liquids, (P.), B. 442.
 utilising [for water sterilisation] the oligo-dynamic action of metals and metal compounds, (P.), B. 742.
- Krause, R. See Balthasar, K.
- Krauss, E. von. See Karrer, P.
- Krauss, F., and Berge, K., [active molecule of oxalic acid], A., 577.
- Krauss, F., and Bruchhaus, E., reactions of gases with dissolved substances or liquids during exposure to light of short wavelength. I. and II., A., 553.
- Krauss, F., and Mählmann, K., chemically pure powdered mercury, A., 176.
- Krauss, F., and Schriever, W., hydrates of calcium carbonate, A., 718.
- Krauss, W. E., nutritive value of milk. III. Supplementary value of various constituents of synthetic basal rations, A., 638.
- Krausse, R., continuous method of calcining pulverulent materials, chemicals, pigments, etc., (P.), B., 1134.
- Kraut, F. See Reichlen, H.
- Kraut, H., hydrates and hydrogels, A., 158.
- Kraut, H., Frey, E. K., and Werle, E., circulatory hormone. IV. Detection of a circulatory hormone in the pancreas, A., 1069.
 circulatory hormone. VI. Inactivation of callicrein, A., 1624.
- Krautzberger, A., spraying or squirting process and apparatus therefor [for paint, etc.], (P.), B., 1121.
- Krauz, C., and Turek, O., determination and separation of picric and 2:4:6-trinitrobenzoic acids, A., 1198.
- Krauz, C. K., and Remenec, J., homologous salols, A., 87.
- Krauze, S., Polish turpentine, B., 779.
- Kraybill, H. R., plant metabolism studies as an aid in determining fertiliser requirements, B., 581.
- Krayer, O., acute action of neosalvarsan on the circulation. II. Cause of action, A., 1473.
- Krezyński, T., natural crude-oil emulsions from the Boryslav-Tustanowie territory. III, B., 596.
- Krebs, E., cell for electrolyzing solutions of alkali chlorides, (P.), B., 516*.
- Krebs, H. See Mansfeld A.-G. für Bergbau & Hüttenbetrieb.
- Krebs, H. A., manometric determination of enzymic decomposition of proteins, A., 956.
 proteolytic action of papain, A., 957.
 manometric determination of the carbon dioxide content of gas mixtures, A., 968.
 "activation" of proteolytic enzymes, A., 1318.
- Krebs, H. L., [photographically] transferring subjects to metal [zinc or copper] surfaces, (P.), B., 441.
- Krebs, O., continuously-operating benzene-washing plant for recovery of aniline from aqueous salt solutions, B., 7.
- Krebs, W. See Heilmeyer, L.
- Krecke, F. See Grasselli Dyestuff Corp.
- Kreider, J. M., centrifugal extractor, (P.), B., 1135.
- Kreidl, I., plant sprays, (P.), B., 209.
 vermin-killers, especially for rats and mice, (P.), B., 209.
 clouding of enamels and glasses and clouding agents therefor, (P.), B., 326.
 rendering enamels cloudy, (P.), B., 664.
- Kreimeier, O. R. See Fuson, R. C.
- Kreines, C. J. See Galvialo, M. J.
- Kreisinger, H., trend in design and operation of industrial plants, with special reference to furnace volume, B., 489.
- Kreisinger, H., Argyle, W. R., and Rice, W. E., fuel-efficiency tests on batch oil stills, B., 698.
- Kreisinger, H., and International Combustion Engineering Corporation, air washer, (P.), B., 87.
 gas washer, (P.), B., 1136.
 drying of coal in the mill, (P.), B., 1138.
- Kreisinger, H. See also Internat. Combustion Eng. Corp.
- Kreitmaier, H., harmine, A., 623.
 treatment of rickets with irradiated ergosterol, A., 1071.
 [isomeride of yohimbine], B., 485.
- Kreke, M. van der, determination of invert sugar in sugars, etc., B., 210.
- Kremann, R., electrolysis of alloys, A., 1510.
- Kremann, R., Bauer, F., Vogrin, A., and Scheibel, H., change in the direction of migration of the alkali and other metals during electrolysis of the corresponding amalgams, in relation to the concentration, A., 1253.
- Kremann, R., Korth, B., and Schwarz, E. I., electrolytic flow in fused silver-lead alloys, A., 1253.
- Kremann, R., and Piwet, W., electrolysis of bronzes with addition of lead, A., 1253.
- Kremann, R., and Schwarz, E. I., electrolysis of bronzes with addition of silver, A., 1253.
- Kremer, J., electrical method and apparatus; [electrical conductor], (P.), B., 672.
- Kremer, P., ratio of the number of Ca⁺ atoms in the solar atmosphere over faculae and over corresponding parts of the solar surface near the limb, A., 971.
- Kremers, K. See Ruer, R.
- Kremleva, E. A. See Shukov, I. I.
- Kremmling, O., process and apparatus for expressing material, *e.g.*, of the consistency of dough or pasty material, (P.), B., 838.
- Kremneva, S. N. See Lazarev, N. V.
- Krenn, J., electrical conductivity of milk. II. Results of practical measurements on the milk of cows from different herds, B., 738.
- Krenz, C. See Moritz, A. R.
- Křepelka, J. H., at. wt. of arsenic. I. Analysis of arsenic trichloride, A., 975.
- Kres, E., determination of phenols (acid oils) in gas liquors and carbonisation liquors, B., 1054.
- Krestinskaja, V. N., slow adsorption of acetic acid, benzoic acid, and crystal-violet from aqueous solution by carbon, A., 151.
 adsorption processes. II., A., 538.
- Krestinskaja, V. N., and Moltschanova, O. S., positive and negative habituation in the coagulation of ferric hydroxide sols, A., 1368, 1518.
- Krestinski, V. N., and Bashenova-Koslovskaja, L. J., action of phosphorus halides and halogen acids on the acetylenic γ -glycols. II., A., 574.
- Krestinski, V. N., and Perssianzeva, N., refractive index of solutions of certain γ -glycols of the acetylenic and saturated series, A., 319, 573*.
- Krestinski, V. N., and Solodki, F., composition of turpentines from *Pinus sylvestris*, B., 26.
 turpentine and wood-turpentine: wood-turpentine of the root-resin of *Pinus sylvestris*, B., 621.
- Krestovnikov, A. N., and Lyutringshauzen, G. F., preparation of stable arsenical insecticidal suspensions slightly soluble in water, B., 1042.
- Krestovnikov, A. N. See also Britzke, E. V., and Volschinski, V. A.
- Krestovosdvigenskaja, T. N. See Kulikov, J. V.
- Kretov, A., and Pantschenko, A., diphenyleyanomethyl sulphide, phenyleyanomethyl mercaptan, phenyleyanomethyl thiocyanate, and certain of their derivatives, A., 576.
- Kretov, A. E., action of zinc dust and zinc oxide on the halogen derivatives of aliphatic sulphides, A., 575.
 action of zinc dust and zinc oxide on the halogen derivatives of aliphatic sulphoxides and sulphones; divinylsulphone, β -chloroethylvinylsulphone, and their derivatives, A., 891.
 carbonyl chloride, B., 322.
- Kreulen, D. J. W., influence of added kaolin and graphite on the degree of swelling of coke obtained in determinations of volatile matter in coal, B., 42.
 heat evolved on the treatment of different varieties of coal with concentrated sulphuric or nitric acid, B., 354.
 determination of volatile matter in coal by the standard method, with a new and an old platinum crucible and a nickel crucible, B., 494.
 combustibility of coke, B., 495.
 apparatus for determining tendency of coal and other materials to self-ignition, B., 847.
 method of determination of activity of coke, and results obtained, B., 1052.
- Kreutzberg, O. A., centrifugal pulveriser, (P.), B., 268.
- Kreutzer, A. See Metzger, J.
- Krevisky, C., determination of the quantity of free water in erythrocytes, A., 942.
- Kreybig, L., determination of the nutrient requirement and inoculability of soils by Niklas' *Azotobacter* method, B., 784.
- Kriebie, V. K., and McNally, J. G., hydrolysis of hydrogen cyanide by acids, A., 39.
- Krieger, F. O., apparatus for refining used oil, (P.), B., 979.
- Krieger, P., X-ray diffraction study of the series calcite-rhodochrosite, A., 1502.
- Krieger, W. See Schmidt, M. P.
- Krieghoff, K. See Fredenhagen, K.

- Kriegsheim, H., and Permutit Co., treatment of boiler water, (P.), B., 1136.
- Kriegsheim, H., Vaughan, W., and Permutit Co., improvement of glauconite [for water softening], (P.), B., 1027.
- water-purifying material and its manufacture, (P.), B., 1094.
- Krigl, K. See Jendrassik, L.
- Krilov, E. I. See Mokrushin, S. G.
- Krimpen, J. van. See Böeseken, J.
- Krings, W., and Kempkens, J., solubility of oxygen in solid iron. II., A., 989.
- Krings, W., and Salmang, H., stable crucibles for silicate fusions, A., 1153.
- Kringstad, H. See Hassel, O.
- Krishnamurti, K., identity of colloidal particles in soap sols and gels, A., 856.
- Krishnamurti, K., and Svedberg, T., ultracentrifugal study of gelatin solutions, A., 1198.
- Krishnamurti, K. See also Burgess, L. L., and Donnan, F. G.
- Krishnamurti, P., Raman spectra of crystalline powders, A., 522.
- Raman effect in metallic halides, A., 978.
- X-ray diffraction in liquid hexamethylbenzene, A., 983.
- Raman effect in paramagnetic crystals, A., 1091.
- Raman effect in crystal powders of inorganic nitrates, A., 1237.
- Raman spectrum and infra-red absorption of sulphur, A., 1237.
- Raman spectra of crystalline inorganic chlorides, A., 1344.
- Raman spectra of crystalline inorganic sulphates, A., 1344.
- Krishnan, K. S., influence of molecular form and anisotropy on the refractivity and dielectric behaviour of liquids, A., 137.
- are black soap films birefringent? A., 639.
- Krishnan, K. S., and Dasgupta, A. C., pleochroism and crystal structure, A., 1100.
- Krishnan, T. S., silage investigations at Bangalore, B., 1000.
- Krishnaswami, K. R., revision of the at. wt. of tantalum; determination of the ratios $\text{TaBr}_5:5\text{Ag}:5\text{AgBr}$ and $\text{TaCl}_5:5\text{Ag}:5\text{AgCl}$, A., 975.
- Kriss, M., quantitative relations of the dry matter of the food consumed, the heat produced, the gaseous outgo, and the insensible loss in body-weight of cattle, A., 638.
- Kristensson, A. See Kali-Ind. A.-G.
- Kritchevsky, V., compositions for decolorising dyed fabrics, (P.), B., 944.
- Kritchevsky, V., Prutsman, H. C., and Morrill, E., dye composition [for domestic use], (P.), B., 942.
- Kritchevsky, V., Prutsman, H. C., Morrill, E., and Products Corporation, dye [for domestic use], (P.), B., 1145*.
- Krivolutskaya, N. S., and Morozov, G. G., influence of the shape of carbon electrodes on the properties of carbon-zinc elements, B., 774.
- Kriwozjas, I. M. See Karavaev, N. L.
- Kříž, A., heterogeneity of an ingot made by the Harmet process, B., 1070.
- Kříž, A., and Pobořil, F., constitution of the Fe-C-Si system, B., 1031.
- Kriz, S., and Kral, H., influence of the age of the furnace on the time of melting and the energy consumption of electric steel furnaces, B., 328.
- Kroczeck, J., and Lübcke, E., cross-sectional resistance of the oxide layer of hot cathodes, A., 1504.
- Kröber, W. See Hantzsch, A.
- Kröger, C. See Neumann, B.
- Kröger, M., and Möbius, E., mathematical representation of the deformation curve of rubber, B., 432.
- Kröhnke, F. See Leuchs, H.
- Kröner, A. See Heraeus Ges.m.b.H., W. C.
- Kroenig, W., corrosion of duralumin in relation to its composition, B., 1157.
- Kroepelin, H., measurements of viscosity with colloids, A., 145.
- [association and solvation of polystyrenes], A., 202.
- flow of colloids which show viscosity anomalies, A., 1366.
- thermodynamics of lyophilic colloids, A., 1518.
- caoutchouc molecule or caoutchouc micelle? B., 873.
- Kröper, H. See Braun, J. von.
- Kroese, A. G., and Nieuwenhuyzen, F. J., determination of small amounts of silicon and calcium in the lungs, A., 1465.
- Kroft, B., and Steinhoff, G., determination of nicotine in a cadaver, B., 37.
- Krogh, A., elementary micro-analysis, especially adapted for dissolved substances, A., 1145.
- Krogh, A., and Lange, E., use of celluloid in the laboratory, A., 1153.
- Krogh, A., and Rehberg, P. B., determination of carbon dioxide in fluids and tissues by micro-titration, A., 1485.
- Krol, B. See Mullard Radio Valve Co., Ltd.
- Królikowski, L. See Terlikowski, F.
- Kroll, W., production of beryllium, (P.), B., 200*.
- production of calcium, (P.), B., 289.
- Kroll, W. See also Siemens & Halske A.-G.
- Krombach, H. See Cornec, E.
- Kron, L. C. See Simon, A. W.
- Kronacher, H. K. See Terres, E.
- Kronenberger, A., absorption and luminescence of benzene and benzene derivatives at -259° , A., 1089.
- Kronig, R. de L., anomalous behaviour of the nitrogen nucleus, A., 395.
- spontaneous disintegration of diatomic molecules, A., 981.
- Kronig, R. de L., and Fujioka, Y., intensities in the spectra of diatomic molecules in uncoupling of the electronic orbital impulses, A., 1226.
- Krontovski, A., effect of radium rays on the carbohydrate content of the tissues, A., 955.
- Kropatscheck, W., rate of disappearance of radioactive substances from body fluids; determination of blood volume, A., 490.
- Kropf, H. See Geiger, E.
- Kropp, W., and Winthrop Chemical Co., Inc., basic oxime ethers of cyclic compounds, (P.), B., 793*.
- Kropp, W. See also I. G. Farbenind. A.-G., and Schulemann, W.
- Kross, W. See Freundlich, H., and Gen. Aniline Works Inc.
- Krotov, I. V. See Kistiakowski, V. A.
- Krotowiczówna, J. See Górski, M.
- Kroupa, G., conversion of low-temperature tar into light oil, B., 1011.
- Kruber, O., 2:3-dimethylnaphthalene from coal tar, A., 202.
- 4-methylindole in coal tar, B., 44.
- Krügel, C. See Dreyspring, C.
- Krüger, A., ageing of metals, B., 991.
- Krueger, A. P., determination of bacteria in suspensions, A., 960.
- determination of bacteriophage, A., 960.
- Krueger, A. P., and Ritter, R. C., preparation of graded series of ultra-filters and measurement of their pore sizes, A., 728.
- Krueger, A. P., and Tamada, H. T., preparation of relatively pure bacteriophage, A., 115.
- Krüger, D., acetate silk, B., 137.
- determination of the acetate content of cellulose acetate, B., 812.
- Krüger, D., and Grunsky, H., diffusion of substances showing deviations from Fick's law, A., 1358.
- Krüger, D., and Tschirch, E., blue colour of "basic lanthanum acetate" with iodine; very sensitive reaction for the acetate ion, A., 62.
- microchemical detection of acetic acid, A., 192.
- detection of acetic acid, A., 357, 451*.
- coloured iodine compounds of basic salts of rare earths; starch iodide problem. II., A., 739.
- Krüger, D. See also Freundlich, H.
- Krüger, P., digestive enzymes of invertebrates, A., 248.
- determination of manganese in cobalt steels, B., 1069.
- Krüger, P., and Graetz, E., enzymes of the gastric juice of the river crayfish, A., 105.
- Krüger, S. A., preparation of base-exchanging filter materials, (P.), B., 988.
- Krüll, F. See Sieverts, A.
- Krug, C. See Gans, R.
- Krug, H. See Ruft, O.
- Kruger, G., spark spectrum of copper, Cu II, A., 2.
- Kruger, P. G., new lines in the arc and spark spectrum of helium, A., 1487.
- Kruger, R. See Herzfeld, E.
- Krugliakoff, J. See Jolles, Z.
- Kruisheer, C. I., determination of starch syrup and starch sugar in presence of sucrose and invert-sugar, B., 388.
- examination of honey and honey cakes, B., 391.
- polyfructoses and their determination. I. Determination of levulose for the detection of artificial invert-sugar in honey, B., 1043.
- Krulla, R., resistance of nickel to corrosion, B., 822.
- Krumholz, P. See Feigl, F.
- Krumpel, O. See Hausmann, W.
- Krupkowski, A., and De Haas, W. J., properties of nickel-copper alloys at low temperatures; thermo-electric and dilatation determinations with nickel-copper at low temperatures, A., 148.

- Krupp Akt.-Ges., *F.*, austenite nickel-chromium steel alloys, (P.), B., 198.
 jacketed metal drums, (P.), B., 290, 591.
 production of an alloy consisting of carbide of tungsten or molybdenum and of a lower-melting metal or metalloid, (P.), B., 333.
 welding of silicon-containing steel alloys, (P.), B., 426.
 production of shaped bodies having a predominating percentage of tungsten or molybdenum, (P.), B., 721.
 electrical devices for heating a metal melt within a ladle, (P.), B., 823.
 furnace ladles, (P.), B., 823.
 manufacture of tools of homogeneous alloys of great hardness, (P.), B., 823.
 constructional steel, (P.), B., 952.
 welding iron or steel alloys containing copper, (P.), B., 994.
 purification of pig iron, (P.), B., 1114.
 production of age-resisting welded seams when welding age-resisting iron or steel alloys by the press-welding process, (P.), B., 1116.
 electrodes for spot-welding of copper, (P.), B., 1116.
 Krupp Akt.-Ges., *F.*, and Patent-Treuhand-Gesellschaft für Elektrische Glühlampen m.b.H., production of shaped bodies for tools of material difficult to work, such as carbides, their alloys, etc., (P.), B., 616.
 Krupp Akt.-Ges., *F.*, Strauss, *B.*, and Klinger, *P.*, decarburisation of ferrochromium containing carbon, (P.), B., 719.
 Krupp Akt.-Ges., *F.* See also Fry, *A.*, Schmücking, *A.*, Schröter, *K.*, and Stäblein, *F.*
 Krupp Grusonwerk Akt.-Ges., *F.*, treatment of mustard oil-containing seeds prior to extraction of the oil by pressure, (P.), B., 155.
 [electromagnetic] separation or sorting of solid materials, (P.), B., 290.
 magnetic separation of materials, (P.), B., 491.
 treatment of oil-containing fruits [especially palm fruits], (P.), B., 519.
 presses for damp, or moist, materials, (P.), B., 537.
 apparatus for separation of oil from oil-containing substances, (P.), B., 675.
 manufacture of cast-iron grinding balls, (P.), B., 1075.
 preventing the formation of deposits or incrustations in rotary tubular furnaces, (P.), B., 1095.
 recovery of fibre from the leaves of fibrous plants, (P.), B., 1106.
 Krupp Grusonwerk Akt.-Ges., *F.* See also Bodenstein, *P.*, Heine, *H. G.*, Johannsen, *F.*, and Pape, *H.*
 Krustinsons, *J.*, influence of particle size on the dissociation pressure of solids; red mercuric oxide; Iceland spar, A., 1372.
 thermal dissociation, A., 1522.
 dependence of the dissociation temperature of a solid on the size of the crystal grains, A., 1522.
 Kruyt, *H. R.*, unequal distribution of stabilising factors on the surface of colloidal particles, A., 153.
 problems of present-day colloid chemistry. II. Decrease of potential produced by electrolytes, A., 291.
 problems of present-day colloid chemistry. III. Electrical double layer, A., 540.
 problems of present-day colloid chemistry. V. Kinetics of coagulation, A., 541.
 problems of present-day colloid chemistry. IV. Constitution of the double layer during peptisation, A., 696.
 problems of present-day colloid chemistry. VI. Hydration of hydrophilic colloids, A., 856.
 problems of present-day colloid chemistry. VII. and VIII., A., 1112.
 stability of colloids, A., 1249.
 Kruyt, *H. R.* [with De Haan, *E. F.*], so-called "slow" coagulation, A., 692.
 Kruyt, *H. R.*, and Winkler, *K. C.*, influence of hydrated colloids on depression of f. p., A., 691.
 Kruyt, *H. R.* See also De Jong, *H. G. B.*
 Krynsky, *A. I.*, and Harrison, *W. N.*, blistering phenomena in the enamelling of cast iron, B., 239.
 Kryž, *F.*, losses in weight and sugar content of beet slices during brief steaming, B., 116.
 Krzikalla, *H.* See Gen. Aniline Works, Inc.
 Krzywaneck, *F. W.*, and Bedi-i-Schakir, enzyme content of the faeces of domesticated animals, A., 948.
 Ksanda, *C. J.* See Kracek, *F. C.*
 Kténas, *C.*, petrochemical characters of the Santorin caldera, A., 188.
 limits of the mixed Aegean region; attempts at geological synthesis, A., 188.
 Kuan, *R. C.* See Wilson, *E. O.*
 Kuback, *W. L.* See Brit. Thomson-Houston Co., Ltd.
 Kubalek, *O.*, fuel economisers; their construction, materials, and recent developments, B., 643.
 Kubásek, *A.* See Spousta, *J.*
 Kubelka, *V.*, adsorption and swelling. III., A., 858.
 Kubelka, *V.*, and Dousa, *K.*, action of neutral salts on the enzyme activity of tryptic bates. II., B., 678.
 Kubelka, *V.*, and Némec, *V.*, determining the insoluble matter [in tan liquors] by the sedimentation method, B., 733*.
 Kubiena, *W.*, lack of catalyst and bacterial content of soil in relation to the fertilising action of calcium cyanamide, B., 387.
 Kubierschky, *K.*, purification of bromine, (P.), B., 189.
 Kubo, *H.*, effect of irradiation on oxidation; effect of X-rays on the carbon and oxidation quotients of urine, A., 496.
 Kubota, *B.*, and Yamanaka, *T.*, promoter action in the catalytic oxidation of methane by steam, A., 43.
 Kubota, *S.* See Chogo, *K.*
 Kubowitz, *F.* See Warburg, *O.*
 Kučerenco, *V.* See Votoček, *E.*
 Kucher, *A. A.* See Westinghouse Electric & Manuf. Co.
 Kuchler, *K.*, rapid determination of free hydrochloric acid in presence of ferric and aluminium chlorides, A., 1143.
 Kudar, *J.*, collision between free and combined α -particles, A., 7.
 foundation of Nernst's hypothesis of the formation of radioactive elements on the basis of wave-mechanics. II., A., 394.
 wave-mechanical character of the β -decomposition. II.—IV., A., 516.
 β -radiation and the energy principle, A., 1339.
 Kudlaček, *E.* See Némec, *V.*
 Kudra, *O. K.* See Plotnikov, *V. A.*
 Kudrjavzev, *A. A.* See Popov, *N. A.*
 Kudrjavzev, *N. A.* See Andreev, *N. N.*
 Kuchler, apparatus for the determination of oxygen in water containing suspended slime, B., 396.
 Kuchlin, *A. T.*, volumetric determination of copper, A., 313.
 synthesis of α -ketocrythronic acid, A., 1021.
 Kuchlin, *A. T.*, and Böeseken, *J.*, significance of ferric and ferrous complexes of carbohydrates and polyhydric alcohols for the mechanism of Fenton's reaction, A., 583.
 Kuchlin, *A. T.* See also Böeseken, *J.*
 Kügerl, *R.* See Holz, *F.*
 Kühl, *Hans*, significance of fineness and chemical composition in the water requirement of cement, B., 714.
 Kühl, *Hans*, and Lorenz, *H.*, fixation of lime by the constituents of the clay in progressive heating of cement raw mixture, B., 191.
 Kühl, *Hugo*, biuret reaction for the characterisation of proteins, A., 799.
 detection of hard wheat grits in dough, B., 262.
 detection of hard wheat grits, B., 738.
 Kühl, *Hugo*, and Gottschalk, *P. G.*, comparing protein determinations in grain with the quick method, B., 214.
 Kühles, *R.*, respiration of barley during malting, B., 116.
 Kühles, *R.* See also Fink, *H.*, and Lüers, *H.*
 Kühlewein, *H.*, alloys of the ternary system iron-nickel-cobalt, A., 1245.
 Kühn, *I.*, rapid determination of calcium in clay soils with Scheibler's apparatus, B., 207.
 Kuehn, *P. M.*, and Bartlett, Hayward Co. centrifugal scrubber, (P.), B., 1050.
 Kühn, *S.*, quinhydrone-electrode and indicator methods for measuring the p_H of soils; their individual application and comparison, B., 72, 255.
 Kühnel, *R.* [with Neseemann, *E.*], peculiar crystal growth in iron and copper and its cause, B., 376.
 Kuehner, *A. L.* See McRae, *J. A.*
 Kümmel, *P.* See I. G. Farbenind. A.-G.
 Kuen, *F. M.*, oxidation of sugars with atmospheric oxygen and hydrogen peroxide. I., A., 196.
 Kuen, *F. M.* See also Goldhammer, *H.*
 Küntzel, *A.*, utility of the Zeiss step-photometer in tannery laboratories, B., 159.
 mode of action [on pelt] of pickles of different compositions, B., 873.
 Küntzel, *A.*, and Buchheimer, *K.*, preparation and properties of wet collagen, B., 874.

- Kuentzel, W. E., automatic cut-off device for a gas-heated laboratory mercury still, A., 55.
laboratory vacuum regulator, A., 55.
apparatus for determination of moisture content of solids and the sorption of gases and vapours by solids at elevated temperatures, A., 186.
preferential catalytic oxidation of carbon monoxide in the presence of hydrogen. I. Activity of two water gas conversion catalysts, of copper oxide, of manganese dioxide, and of a mixture of these oxides. II. Activity of two-component hopcalites, A., 429.
- Künzel, K., manufacture of glass, (P.), B., 664.
- Küpker, G. See Ledermann, L.
- Küppers, H., drying and heating apparatus, (P.), B., 443.
- Kürschner, K. [with Wollmarker], lignin, A., 198.
- Kürschner, K., and Hoffer, A., determination of cellulose in wood and pulp, B., 608.
- Kürschner, W., electric welding in carbonising plants and gas-works, B., 697.
- Küster, H. See Fischer, Franz, and Peters, K.
- Küster, O. See Wirth, F.
- Küster, W., and Daur, R., action of aromatic diazo-compounds on lignin and cellulose, A., 205.
- Küttner, E. W., electrolytic production of insulating layers on articles of aluminium and its alloys, (P.), B., 671.
- Kugel, M., electrolyte for lead accumulators and method of using the same, (P.), B., 381*.
producing and maintaining constant the necessary supply of phosphoric acid in the electrolyte of lead accumulators, (P.), B., 954.
- Kugel, R. A., influence of hydrogen-ion concentration on the coagulation of hydrosols of Prussian-blue, A., 695.
- Kugelmass, N., Bancroft, F. W., and Stanley-Brown, M., determination and regulation of blood-clotting function in childhood. I., A., 1306.
- Kuh, E. See Fürth, O.
- Kuhles, W., spray dryers, B., 885.
- Kuhlmann, J. See Baumann, K.
- Kuhn, A., artificial crystallised Karlsbad salt, B., 238.
- Kuhn, Arthur, and Still, C., distillation or similar columns, (P.), B., 889*.
- Kuhn, H., proof of the existence of a K_2 molecule bound by polarisation forces, A., 655.
behaviour of strongly excited atoms in an electric field, A., 831.
interpretation of a type of diffuse band spectra, A., 1089.
- Kuhn, H. See also Briner, E.
- Kuhn, R., and Hoffer, M., conjugated double linkings. XIII. Synthesis of unsaturated, coloured, fatty acids, A., 1406.
- Kuhn, R., and Meyer, Karl, catalytic oxidations with hæmin, A., 235.
- Kuhn, R., and Wagner-Jauregg, T., molecular compounds and colour reactions of conjugated unsaturated hydrocarbons. II., A., 333.
conjugated double linkings. XIV. Addition of maleic anhydride to polyenes, A., 1580.
- Kuhn, R., and Winterstein, A., distribution of lutein in the vegetable kingdom, A., 1483.
manufacture of polymethine dyes, (P.), B., 707.
- Kuhn, R., Winterstein, A., and Kaufmann, W., crystalline coloured wax, A., 966.
conjugated double linkings. XII. *Physalis* dyes, A., 1044.
- Kuhn, R. See also Willstätter, R.
- Kuhn, R. J., galvanic corrosion on cast-iron pipes, B., 560.
- Kuhn, W., scattering of thorium-C' γ -radiation by radium-G and ordinary lead, A., 8.
optical rotation and chemical constitution, A., 276.
physical significance of optical rotatory power, A., 981.
kinetics of the degradation of multimolecular chains, A., 1025.
- Kuhn, W., and Braun, E., measurement and interpretation of rotatory dispersion of simple substances, A., 980.
measurement of circular dichroism in the ultra-violet, A., 1096.
form of optical absorption bands of solutions, A., 1342.
- Kuhn, W., Freudenberg, K., and Wolf, I., optical rotatory power of configuratively related substances, A., 1556.
- Kuhn, W., and Knopf, E., photochemical production of optically active substances, A., 668, 717.
- Kuhn, W. See also Freudenberg, K.
- Kuhn, W. E. See Rhodes, F. H.
- Kuhnel, T. See Bernhardt, A.-G., F. A.
- Kuhnert, nitrogen manuring of fish-ponds, B., 580.
artificial manures in forest management, B., 1042.
- Kuhr, A. See Alpine A.-G. Eisen-griesserei & Maschinenfabr.
- Kuick, L. F. See Boutwell, P. W.
- Kujirai, T., Ueki, S., and Zaidan Hojin Rikagaku Kenkyujo, coating aluminium or aluminium alloys with aluminium oxide, (P.), B., 20*.
- Kuk, S. See Frankel, M.
- Kukla, O., special refractories for electric furnace linings. (a) Silica, corundum, and carborundum bricks, B., 820.
- Kukolev, G. V. See Budnikov, P. P.
- Kulenkampf, H., ionising action of fast electrons, A., 7.
- Kulikov, J. V., and Krestovosdvigenskaja, T. N., detection and determination of small quantities of pyridine, A., 489.
- Kullerud, G., and Hørlück, A. D., aluminium sulphate, B., 816.
- Kullgren, C., action of neutral salts and dilute acids on sulphite pulp, B., 984.
- Kulman, J., detection of flour bleached with chlorine or oxides of nitrogen, B., 528.
- Kulp, M., ultra-violet emission bands of hydrogen chloride, A., 1089.
- Kulp, M. See also Weizel, W.
- Kulzinski, M. See Eesti Patendi Aktsiaselts.
- Kumar, K. K. See Mukherjee, J. N.
- Kummel, P. See I. G. Farbenind. A.-G.
- Kummerov, H. See Volmer, M.
- Kumro, D. M. See Buck, J. S.
- Kuna, F. J. See Lorang, H. J.
- Kundert, A., determination of small amounts of silver in pyrolusite, B., 507.
- Kuniński, M. See Joszt, A.
- Kunitz, M., elasticity, double refraction, and swelling of iso-electric gelatin, A., 857.
- Kunitz, M. See also Northrop, J. H.
- Kunitz, W., formulation of silicates, A., 1016.
- Kuno, Y., enzymic decomposition of nicotine, A., 112.
- Kunstdunger-Patent-Verwertungs Akt.-Ges., and Liljenroth, F. G., leaching of raw phosphate, (P.), B., 323.
- Kunstharzfabrik. F. Pollak Ges.m.b.H., manufacture of aldehyde condensation products, (P.), B., 339.
production of artificial compositions from the condensation solutions of urea, thiourea, or their derivatives and formaldehyde, (P.), B., 677.
manufacture of phenol-formaldehyde condensation products, (P.), B., 958.
- Kunstharzfabrik. F. Pollak Ges.m.b.H. See also Ripper, K.
- Kunstzahn Ges.m.b.H., production of raw material for [dental] porcelain casts, (P.), B., 241.
- Kuntara, W. See Späth, E.
- Kuntz, W. J., beater mill [disintegrator], (P.), B., 399.
- Kunz, H. See Neumann, E.
- Kunz, J., and Shelford, V. E., gas-filled photo-electric cells: their properties and calibration, B., 427.
- Kunz, K., constitution of complex metallic compounds of indigotin, A., 1598.
- Kunz, M. A. See Grasselli Dyestuff Corp.
- Kunz, R., manufacture of artificial stone plates of fibrous materials and hydraulic cement, (P.), B., 1112.
- Kunze, A., fixing the depolarising mass to salt-containing carbon elements for electric batteries, (P.), B., 869.
- Kupalov, P. S. See Hill, A. V.
- Kupferhütte Ertel, Bieber & Co., treatment of liquids with gases, (P.), B., 798.
- Kuraš, M. See Dubský, J. V.
- Kurata, M. See Komatsu, S.
- Kurath, F., and Economy Fuse & Manufacturing Co., production of phenolic condensation products, (P.), B., 157.
- Kurath, F. See also Cherry, O. A.
- Kurbatov, I., active disperse formations of Tua-Muyun, A., 448.
- Kurchatov, P. A., and Kramarova, E. S., adsorption of nitrates by Kuban chernozem, B., 921.
- Kurdjumov, G., and Sachs, G., structure of rolled and of recrystallised sheet iron, A., 1098.
mechanism of steel hardening, A., 1355.
- Kurek, E., recovery of iodine, (P.), B., 144.
- Kurikov, V. I., manufacture of sodium hydroxide from sodium sulphate, B., 903.
- Kurilsky, R. See Rathery, F.
- Kurita, S., total and residual nitrogen contents of cerebrospinal fluid, A., 807.

- Kurita, S., dextrose content of the cerebrospinal fluid, A., 807.
- Kurnakov, N. S., and Andréevski, I. A., derivatives of tetramminoplatinum chloride, A., 180, 560.
- Kurnakov, N. S., and Makarov, S. Z., equilibria in natural soda lakes; ternary system sodium sulphate-sodium carbonate-water, A., 997.
- Kurnakov, N. S., and Opichtina, M. A., solubility phenomena in the system sodium chloride-magnesium sulphate, A., 997.
- Kurnakov, N. S., Shemtschushni, S. F., and Ageeva, V. A., magnesium cement, B., 614.
- Kuroda, (Miss) C., constitution of carthamin. I. and II., A., 920.
- Kuroda, M., colour of alloys, A., 674.
- Kuroda, M., thickness of oxide film producing temper colour on iron, A., 1504.
- Kurokawa, H., erythrocyte and plasma catalase. I. and II., A., 1462.
- Kurokawa, T. See Sato, K.
- Kurosawa, T. See Shriner, R. L.
- Kurotschkin, A. A., augmentation of volume of liquids on the dissolution of solids or gases in them, A., 30.
- Kurotschkin, T. J. See Lim, C. E.
- Kurrein, H., cadmium as a plating material, B., 668.
- Kursanov, D. N. See Namestkin, S. S.
- Kursanova, A. I. See Tschitschibabin, A. E.
- Kurt, O. E., and Phipps, T. E., magnetic moment of the oxygen atom, A., 137.
- Kurtenacker, A., and Ivanov, I. A., conversion of thiosulphuric acid into polythionic acids with the aid of catalysts. II., A., 302.
- Kurtenacker, A., and Jurenka, W., volumetric determination of fluorine, A., 1542.
- Kurtz, F. E., viscosity-plasticity measurements of the effect of gelatin on ice-cream mixes, B., 80.
- Kurtz, F. E. See also Leighton, A.
- Kurtz, H. F., new quartz spectrograph, A., 126.
- Kurtz, S. S. See Goodyear Tire & Rubber Co.
- Kurz, H., treating compound steel ingots, (P.), B., 197.
- Kusagawa, M. See Araki, T.
- Kuschinsky, G., behaviour of potassium and calcium in dog's blood in histamine shock, A., 111.
- Kusei, N. See Ueno, Sei-ichi.
- Kusin, A. See Stepanov, A.
- Kusnetsov, M. I., and Stepanenko, M. A., catalytic oxidation of toluene by air, A., 304.
- Kusnetsov, V. I., treatment of low-grade beet-sugar products, B., 29.
- Kuss, E., and Ritter, G., vacuum apparatus in industrial laboratories, A., 1394.
- Kussmann, A., Scharnov, B., and Messkin, V. S., copper steel for dynamo and transformer sheets, B., 1069.
- Kussmann, A. See also Kaya, S.
- Kustenmacher, H. See Berg, R.
- Kusui, K., embryochemical investigations with the injection method. III. Behaviour of cholesterol in the incubated hen's egg after adrenaline and ephedrine injections, A., 638.
- Küthy, A. von. See Verzár, F.
- Kutscher, W. See Fischer, Hans.
- Kutter, F., brewing value of barley and malt, B., 879.
- numerical expression of the analytical results as basis for the calculation of the brewing value [of barley and malt], B., 926.
- Kuttner, T., and Lichtenstein, L., micro-colorimetry. II. Determination of phosphorus: molybdic acid-stannous chloride reagent, A., 725.
- Kuttner, Akt.-Ges., F., treating artificial silk cakes made by the centrifuge-spinning process, (P.), B., 236.
- Kutz, W. M., and Adkins, H., cleavage of *as-ay*-diketones, A., 1559.
- Kutz, W. M. See also Adkins, H.
- Kutzev, S. S., colloidal state of substances in products of manufacture of beet sugar, B., 388.
- Kutzev, S. S., and Kotlyarenko, M. R., regeneration of norit, B., 128.
- Kutznigg, A., potassium chloride in fibrous form, A., 156.
- oxygen-transmitting action of substances with large specific surface, A., 1133.
- Kutznigg, A. See also Beutel, E.
- Kutznier, W., spectra of scintillations of zinc sulphide-copper phosphor, A., 839.
- Kuula, O. See Routala, O.
- Kuwata, T., action of Japanese acid clay on terpenes. I. Isomerisation of *d*- α -pinene, A., 348.
- Kuwata, T. See also Tanaka, Y.
- Kvalnes, H. M. See Bartlett, E. P.
- Kvasnikov, V. V., influence of fallow methods of culture on some physico-chemical properties of plant juices from winter grain, B., 923.
- Kwecinski, L., and Marchlewski, L., alteration of the absorption spectra of maltose, levulose, and dextrose under the influence of hydrogen and hydroxyl ions, A., 10.
- Kyber, W., separation of phosphorus vapours from carbon monoxide, (P.), B., 713.
- Kylin, H., occurrence of iodides, bromides, and iodide-oxidases in marine algae, A., 262.
- Kyriacou, N. C., roasting and sintering of galena in a rotating furnace, B., 464.
- rationalisation of the shaft furnace for treatment of lead mineral, B., 951.
- Kyrides, L. P., and Nat. Aniline & Chem. Co., Inc., manufacture of quinaldine, (P.), B., 1059.
- Kyropoulos, S., physical basis of lubrication, especially in the explosion motor, B., 6.
- lubricant friction and flow orientation, B., 6.
- dielectric constants of regular crystals, A., 1238.
- Kyvelos, N. See Vlès, F.

L

- Laar, J. J. van, influence of an indifferent gas under pressure on the vapour pressure of water, A., 161.
- displacement of heterogeneous equilibrium of two molten metals with their salts by a third indifferent substance, A., 163.
- surface tension and heat of vaporisation, A., 287.
- prediction of phase equilibria by application of the theory of thermodynamic potential, A., 420.
- equation of state for solids at high temperatures, and the quantity $\gamma = (dp/dt) \times v/R$, A., 847.
- La Bakelite. See Bois Bakéllisé.
- Laban, N. R., [electro]deposition of nickel at high current densities, B., 993.
- La Barre, J. See Zunz, E.
- Labbe, A. L., and American Smelting & Refining Co., apparatus for removing dust from electrodes [in Cottrell-type precipitators], (P.), B., 995.
- Labbé, H., De Balsac, H., and Lerat, R., theosterols of cacao, A., 121.
- Labbé, M., Nepveux, F., and Justin-Besançon, L., effect of acetylcholine on the blood-sugar, A., 369.
- Labes, R., stimulatory and inhibitory actions of quinol and its oxidation products on the leech, A., 1214.
- Labes, R., and Zain, H., antagonistic action of ions on gelatin, A., 160.
- Laboratorium Migohla Inh. K. Kief, preservation of [fresh] flowers and plants, (P.), B., 298.
- Laboratory of Research Chemotherapy. See Conover, J. R.
- Labrousse, F., and Philippon, (Mlle.) S., oxidation-reduction phenomena in fungi, A., 502.
- Labrow, S. See Imperial Chem. Industries, Ltd.
- Laby, T. H., quantitative analysis by X-rays, A., 879.
- atomic analysis by X-ray spectroscopy, A., 1141.
- Laby, T. H., and Eddy, C. E., quantitative analysis by X-rays, A., 560.
- Laby, T. H. See also Eddy, C. E.
- Lacassagne, A., difference of biological action produced in yeasts by various radiations, A., 501.
- Lacey, R. See Edwards, K. B.
- Lacey, W. N., and Woods, H., method of studying the reactions in a Portland cement kiln, B., 145.
- Lachman, A., [preparation of] benzophenone oxime, A., 778.
- [preparation of] diphenylmethylenimine hydrochloride, A., 799.
- Lachs, H., and Biczky, J., electrokinetic potential by the method of streaming potential, A., 1119.
- Lackey, O. N. See Vosburgh, W. C.
- Lackwerke "Japonika" Ges.m.b.H., [bactericidal] paints, (P.), B., 1120.
- Laclan, N. C. See Marenzi, A. D.
- Lacourt, A., constitution of acetyl-*m*-cymene, A., 778.
- Lacourt, A. See also Wuyts, H.
- Lacroix, H. See Janke, A.

- Lacroux, G. A., manufacture of artificial resins by condensation of phenols with aldehydes, (P.), B., 431.
- Lacy, B. S., Dunning, R. G., and Storch, H. H., equilibrium in synthesis and decomposition of methyl alcohol, A., 542.
- Ladenburg, R., permitted and forbidden quantum jumps, A., 1332.
- Ladenburg, R. [with Wolfsohn, G., Kopfermann, H., and Tietze, W.], dispersion of mercury vapour in the ultra-violet and a quantitative relation between dispersion and absorption, A., 842.
- Ladenburg, R., and Levy, S., anomalous dispersion of gases in the excited state. VI. Control experiment for detection of negative dispersion, A., 1488.
- Ladenburg, R., and Sachsse, H., physical processes in the so-called electrical purification. I. Maximum charge of suspended particles, A., 697.
- Ladenburg, R., and Thiele, E., new vapour-pressure measurements of sodium and determination of its chemical constants, A., 678.
- Ladenburg, R., and Tietze, W., physical processes in the so-called electrical gas purification. II., A., 1377.
- Ladenburg, R., and Wolfsohn, G., dispersion of gases and vapours, and its explanation on the dispersion theory. I. Dispersion of mercury vapour in the ultra-violet, A., 1239.
- dispersion of mercury vapour, A., 1488.
- Ladenburg, R. See also Kopfermann, H.
- Ladigina, L. V. See Tronov, B. V.
- Ladoo, R. B. See Wiss, J. E.
- Laeuger, P., and Geigy Soc. Anon., J. R., manufacture of acid dyes of the phenonaphthasafranin series, (P.), B., 1103*.
- Laeverenz, P. See Bamann, E.
- Lafeuille, F., treatment of syrup, (P.), B., 77.
- Laffey, J. P. See Moxham, A. J.
- Laffitte, P., and Prettre, M., inflammation of gaseous mixtures, A., 38.
- Laffitte, P. See also Prettre, M.
- Lafond, V. M. L. See Gros-Lafond, L. M. V.
- Lafond-Pansu, E. M. V. See Gros-Lafond, L. M. V.
- Lafont, L. A. See Infra, and Sorrel, V.
- La Forge, F. B., rotenone. IV. Constitution of rotenone, A., 781.
- La Forge, F. B., and Smith, L. E., rotenone. II. Derivatives of dorritol. III. Dehydrorotenone, A., 781.
- rotenone. VI. Derric acid, A., 1187.
- rotenone. VIII. Isomeric hydroxy-acids and their relation to dehydrorotenone, A., 1440.
- La Forge, F. B. See also Haller, H. L.
- Lagarce, F., reaction of diallylmalonylcarbamide (dial), B., 1102.
- Lagarce, F. See also Cheramy, P.
- Lagatu, H., and Maume, L., comparative chemical evolution of the leaves of the vine taken from different heights on the branches, A., 965.
- mutual physiological replacement of calcium and potassium, B., 434.
- Lagen, J. B. See Althausen, T. L.
- Lahousse, J. E. G., electrical insulating and impregnating material, (P.), B., 202.
- insulating material for electric condensers, etc., (P.), B., 672.
- Lahaussais, R., manufacture of porous ceramic articles or products, (P.), B., 1030.
- Lai, C. F., and Silverman, A., beryllium glass. II. Potassium-beryllium series, B., 767.
- Lainau, A. See Vorländer, D.
- Laing, B. See Nielsen, H.
- L'Air Liquide Société Anonyme pour l'Étude de l'Exploitation des Procédés G. Claude, re-activation of catalysts, (P.), B., 591.
- production of hydrogen peroxide, (P.), B., 819.
- separation of gaseous mixtures by liquefaction, (P.), B., 972.
- extraction of ethylene from ethylene-containing gaseous mixtures, (P.), B., 1055.
- L'Air Liquide Société Anonyme l'Étude et l'Exploitation des Procédés G. Claude, and Société Chimique de la Grande Paroisse (Azote & Prod. Chim.), devices for carrying out exothermic catalytic reactions, (P.), B., 690.
- manufacture of oxygenated organic compounds, (P.), B., 980.
- L'Air Liquide Société Anonyme pour l'Étude et l'Exploitation des Procédés G. Claude. See also Soc. Chim. de la Grande Paroisse (Azote & Prod. Chim.).
- Laird, E. R. See Franklin, (Miss) D., and Sterling, (Miss) V.
- Laird, J. G. See Cranston, J. H.
- Laissus, J., rendering articles of copper or copper alloys resistant to corrosion and oxidation, (P.), B., 914.
- Lake Eric Chem. Co. See Goss, B. C.
- Lakner, A., derivatives of chloroacetylated phenols and phenol-alcohols, A., 1176.
- Lal, P., and Ganguly, P. B., effect of ultra-violet light on colloids. II., A., 1367.
- Lalande, A. See Barbaudy, J.
- Lamar, E. S., and Deming, W. E., temperature distribution along a heated filament used as a catalyst, A., 303.
- Lamb, A. B., manufacture of urea-containing fertilisers, (P.), B., 1125.
- Lamb, A. B. See also Ernst, F. A.
- Lamb, (Miss) F. R. See Bedford, M. H.
- Lamb, M. C., conservation of hides and skins, B., 627.
- Lamberg, Mitscherlich's pot experiment method for the determination of potassium requirement [of soils], B., 207.
- Lambert, R. H. See Gillespie, L. J.
- Lambert, W. See Stone & Co., Ltd., J.
- Lamberti, (Mme.), lactic acid in the determination of the volatile acids of wines, B., 390.
- Lamberti, A. A., and Hooper, A. E. J., oil-gas burners, (P.), B., 855.
- Lambie, J. M., and Ross, D. W., ceramic mass, (P.), B., 510.
- Lambrecht, J. J., manufacture of vegetable wool, (P.), B., 236, 656*.
- Lambrey, M., influence of foreign gases on the absorption spectrum of nitric oxide, A., 272.
- the two normal states of the NO molecule, A., 520.
- spectroscopic investigations on nitric oxide and nitrogen peroxide, A., 1496.
- Lamelas, J., blood-calcium in relation to sympathetic activity, A., 953.
- La Mer, V. K., chemical kinetics in highly dilute solution; bromoacetate and thiosulphate ions in the presence of sodium ion at 25°, A., 168.
- La Mer, V. K., and Friedman, H. B., neutral salt action; relative influence of cations and anions on the equilibrium $2\text{Fe}(\text{CN})_6''' + 3\text{I}^- \rightleftharpoons 2\text{Fe}(\text{CN})_6''' + \text{I}_3^-$, A., 542.
- La Mer, V. K., and Goldman, F. H., solubility of lead iodate in water and in 0.1N-salt solutions, A., 1107.
- La Mer, V. K., and Read, C. L., rapid reactions; velocity and heat effects involved in neutralisation of sodium dichromate by sodium hydroxide, A., 1256.
- La Mer, V. K. See also Friedman, H. B.
- Lammering, D. See Chem. Fabr. von Heyden A.-G.
- Lamont, D. R., and Industrial Spray-Drying Corporation, controlling the characteristics of spray-processed products, (P.), B., 125.
- Lamort, M. J. See Marangoni, E.
- Lampe, B., separation of fusel oil during rectification, B., 164.
- rapid determination of moisture, B., 165.
- fusel oil obtained in the form of vapour, B., 436.
- evaluation of potato flakes according to their yield of alcohol, B., 1128.
- Lampe, B., and Kilp, W., methods of mashing potato flakes and the effect of "souring" B., 1128.
- Lampe, B. See also Lühder, E.
- Lampe, J. See Stormont, M. F.
- Lampe, W., and Sandrowski, Z., synthesis of methysticin, A., 611, 920.
- Lampert, K. C. See Gregory, D. V.
- Lampert, L. M., cholesterol as a measure of egg yolk in milk products, B., 683.
- Lampitt, L. H., research work in the yeast field, B., 737.
- Lampitt, L. H., and Bogod, M., determination of lactic acid in milk and milk products, B., 1167.
- Lampitt, L. H., and Bushill, J. H., apparatus for tracing the change in moisture content of small quantities of powder, A., 186.
- Lampitt, L. H., Hughes, E. B., and Rooke, H. S., furfuraldehyde in heated honey, B., 215.
- Lampitt, L. H. See also Lyons & Co., Ltd., J.
- Lamplough, F., conversion of heavy hydrocarbon oils into light hydrocarbon oils or spirits, (P.), B., 855*, 938.
- Lamprecht, H. See Scholl, R.
- Lancaster, R., and Berry, J. G., zinc-base die-casting alloys, B., 423.
- Lancucki, M., sorption and chemical reactions in atomic rays, A., 658.
- Lanczos, C., Dirac's wave-mechanical theory of the electron and its revision in terms of field theory, A., 394.
- intensity anomaly of Stark-effect lines in very strong fields, A., 652.

- Lanczos, O., theory of the Stark effect in intense fields, A., 1067.
- Landa, S., gradual combustion of hydrocarbons, A., 190.
- Landa, S., and Landova, M., electrolysis of palmitic acid and preparation of pentadecene, A., 321.
- Landa, S., and Riedl, R., synthesis of higher isoparaffins, A., 1268.
- Landau, A., Glass, G., and Kaminer, S., distribution of chlorine in blood; relation to the acid-base equilibrium, A., 361.
- Landau, L., diamagnetism of metals, A., 1355.
- Landé, G., formation of cyanic acid and carbamide by oxidation of carbon and its derivatives in presence of ammonia, A., 461.
- Landecker, M. See Homberg, F.
- Lander, C. H., and Hurley, T. F., retorts, kilns, dryers, heat interchangers, etc., (P.), B., 222.
- feeding of liquids under predetermined conditions of speed and pressure, (P.), B., 224.
- Lander, G. D. micro-detection of alkaloids, A., 1304.
- Lander, J. See Callison, W. E.
- Lander, P. B., and Dharmani, P. L. C., digestibility trials on Indian feeding stuffs. IV. Punjab hays (II). V. American and Indian cotton seeds, B., 165.
- digestibility trials on Indian feeding stuffs. VI. Green fodders and silage, B., 530.
- Landesen, G. [with Reistal, M.], formation of green manganous sulphide. II. Influence of ammonium hydrosulphide, hydroxide, and sulphide on the transition of the pink to the green sulphide, A., 1539.
- Landeskroener, C., [apparatus for] washing, desulphurising, bleaching, and similar treatment of artificial silk, (P.), B., 555.
- Landmark, H., and Nagel, W., waterproofing of sailcloth and similar textiles, (P.), B., 709.
- Landolt, G. L., Hill, E. G., and Lowy, A., relative [flotation] activity of the various constituents of crude "cresylic acid," B., 912.
- Landon, N. R. See Delaware, Lackawanna & Western Coal Co.
- Landova, M. See Landa, S.
- Landry, B. A. See Nicholls, P.
- Landsberg, G., and Mandelstam, L., scattering of light in crystals at high temperatures. II, A., 397.
- Landsberg, G., and Wulfsolm, K., molecular light scattering in solid bodies. III. Intensity of the light scattered by crystalline quartz, A., 13.
- Landsberg, G. See also Boryschanskaja, F., and Mandelstam, L.
- Landsteiner, K., and Scheer, J. van der, serological differentiation of steric isomerides (antigens containing tartaric acid). II, A., 104.
- Landt, E. See Weidenhagen, R.
- Landwirtschaftliche Zentral-Genossenschaft R. Ges.m.b.H., device for concentration of liquids, especially whey and skim milk, (P.), B., 538.
- Lane, A., cells for production of gases by electrolytic processes, (P.), B., 22.
- Lane, C. T., magnetic susceptibility of rubidium, A., 846.
- Lane, F. H. See Dunlop Rubber Co., Ltd.
- Lane, G. T. See Kodak, Ltd.
- Lane, J. H., flotation process [for lead-zinc ores], (P.), B., 514.
- Lane, M. H. See Mackenzie, F. H.
- Lane, R. S., Montgomery, S. A., and Standard Oil Co., removal of petrolatum from hydrocarbon oils, (P.), B., 599.
- Lang, A. See Felix, K.
- Lang, E., mercerisation of cotton for the production of a silk-like appearance and handle, (P.), B., 657.
- Lang, G. See Rupe, H.
- Lang, H. R., and Jessel, R., variation with temperature of the sp. heat of typical crude oils and their residues when topped to 100°, B., 649.
- Lang, K., possibilities of an individual chemical synthesis of serum-protein. II. Sulphur content of human serum-protein, A., 490.
- permeability of erythrocytes to chlorine ions in diabetes mellitus, A., 1206.
- effect of organic fluorine compounds on the animal organism. I. Action of fluorobenzene, *p*-fluorotoluene, and *p*-fluoroacetanilide and the state of fluorine in the blood, A., 1314.
- daily variation of the sulphur and tryptophan content of human serum-proteins, A., 1607.
- Lang, K. See also Stuber, B.
- Lang, R., iodometric determination of zinc, A., 182.
- Lang, R., and Messinger, J., diphenylamine-blue as indicator in the precipitation volumetric determination of the chlorine, bromine, and silver ion in acid solution, A., 1010.
- Lang, R. J., second spark spectrum of antimony and a note on the first spark spectrum of tin, A., 651.
- Lang, W. A. See Stansfield, E.
- Langbein-Pfauhauser-Werke Akt.-Ges., improving the contact between moving electrodes and the bus-bars, (P.), B., 202.
- electrolytic process and apparatus [for silver-plating], (P.), B., 289.
- Lange, B., new kind of photo-cell, A., 391.
- Lange, E., and Berger, R., measurement of the adsorption of ions by silver iodide by means of potentiometric precipitation titration, A., 684.
- quantitative ease of ionic adsorption determining potential, A., 852.
- Lange, E., and Mischtschenko, K. P., non-isothermal adiabatic calorimetry. II. Measurement of temperature changes of less than 0.1° with an accuracy of $\pm 0.0001^\circ$, A., 1013.
- thermodynamics of ionic solvation, A., 1121.
- Lange, E., and Monheim, J., adiabatic calorimetry. III. Measurement of temperature changes of 10^{-3}° to $7 \times 10^{-7}^\circ$ with an accuracy of $\pm 5 \times 10^{-6}$ to $\pm 2 \times 10^{-7}^\circ$, A., 1152.
- heats of dilution of uni- and multi-valent strong electrolytes at high dilutions, A., 1375.
- electrolytic Peltier heats and their measurement by isothermal adiabatic differential calorimetry, A., 1377.
- heats of dilution and of solution of potassium nitrate and chloride, rubidium fluoride, and calcium sulphate at high dilutions, A., 1524.
- Lange, E., and Robinson, A. L., heats of dilution of sodium nitrate, chlorate, bromate, and iodate at high dilution at 25.0°, A., 997.
- temperature coefficient of dielectric constant of water, A., 1093.
- Lange, E., and Shibata, Z., heat of solution of sparingly soluble electrolytes. II, A., 1252.
- Lange, E. See also Krogh, A.
- Lange, F. See Brasch, A.
- Lange, H. See I. G. Farbenind. A.-G.
- Lange, J. See Ebert, L.
- Lange, L. See Zeller, H.
- Lange, N. A., Roush, W. E., and Asbeck, H. J., quinazolines. I. Interaction of 2:4-dichloroquinazoline with sodium alkoxides and phenoxides with the replacement of one halogen to form halogen-oxygen ethers, A., 1448.
- Lange, N. A., and Sinks, M. H., solubility, specific gravity, and index of refraction of aqueous solutions of fumaric, maleic, and *i*-malic acids, A., 1108.
- Lange, R. S., washing machines, (P.), B., 1064.
- Lange, W., description of gin, B., 480.
- Lange, Willy, and Lewin, G., sorption of hydrogen sulphide by potassium benzenesulphonate and a thiohydrate of this salt, A., 1423.
- Lange, Willy, and Müller, Emil, salts of hexafluorophosphoric acid, HPF_6 , A., 877.
- aryl fluorosulphonates, $\text{Ar-O-SO}_2\text{F}$, A., 1573.
- Langecker, H., blood-sugar-reducing action of *Rhizoma polygonati*, a popular antidiabetic remedy, A., 1214.
- influence of bile on resorption, A., 1616.
- Langelaan, J. W., silver chloride electrode in contact with Ringer's solution, A., 386.
- Langenbeck, W., and Hutschenreuter, R., organic catalysts. IV. Decarboxylation of phenylglyoxylic acid and pyruvic acid, A., 714.
- Langenberg, T., and Fesca & Sohn, C. A., continuous centrifugal machine, (P.), B., 41*.
- Langenheim, W. See Ackermann, H.
- Lange-Pozdeeva, I. P., oxidation of sulphur and thiosulphate by thionic acid bacteria, A., 1622.
- Langer, A., reduction of iron ores, (P.), B., 952.
- Langer, R. M., and Meggers, W. F., light scattering in liquids, A., 840.
- Langfeldt, E., and Hellerud, R., extraction of emulsified, suspended, or dissolved substances from liquids by means of volatile solvents, (P.), B., 1097.
- Langguth, S., preparation of naphthionic acid, A., 1174.
- chloro-iodo-bromo-emulsion for colour sensitising, B., 83.
- preparation of diansidine, B., 232.
- Langley, W. D., metabolism of amines. I. Trimethylamino, A., 109.

- Langmuir, I., and Found, C. G., metastable atoms and electrons produced by resonance radiation in neon, A., 1335.
- Langmuir, I., MacLane, S., and Blodgett, (Miss) K. B., effect of end losses on the characteristics of filaments of tungsten and other materials, A., 658.
- Langmuir, I. See also Gen. Electric Co.
- Langsdorf, A. S. See Stout, L. E.
- Langstroth, G. O., relative intensities of Stark components in helium, A., 1327.
- Langton, W. E. See Thame, J.
- Lang-Verte & Cie, G. A., [spreader device for] manufacture of very smooth, varnished, flexible fabric, (P.), B., 280.
- Langwell, H., production of aliphatic acids and other fermentation products, (P.), B., 1128.
- Lanik, J. See Němec, A.
- Lanning, C. E., adsorption of water vapour and carbon dioxide by manganese dioxide and hopcalite catalysts, A., 990.
- Lannung, A., solubilities of helium, neon, and argon in water and organic solvents, A., 406.
- Lantz, C. W., temperature and catalase activity in germinating maize, A., 825.
- Lantz, L. A., and Watson, R., production of aniline-black on textile fibres, (P.), B., 140*.
- Lanyar, F. See Lieb, H.
- Lányi, B., and Theisz, E., photo-electric studies on metal and oxide electrodes in distilled water and dilute solutions, A., 1093.
- Lapkin, N. See Schettle, I.
- Laporta, M. See De Caro, L.
- Laporte, G., manufacture of soap, (P.), B., 292.
- Laporte, O., and Inglis, D. R., resonance separations in configurations of type p^2s and d^2s , A., 971.
- Laporte, Ltd., B., Weber, I. E., and Slater, V. W., manufacture of barium carbonate, (P.), B., 1065.
- Lapp, C., magnetic viscosity, A., 142.
- Lapp, (Mme.) E., specific heat of nickel, A., 282.
- Lapworth, A., and Manske, R. H. F., stability of cyanohydrins. II. Dissociation constants of cyanohydrins derived from methyl alkyl and phenyl alkyl ketones, A., 1251.
- Lapworth, A. See also Bottomley, A. C., and Cocker, W.
- Laqueur, E., Dingemanse, E., and Kober, S., crystalline "men-formon," A., 378.
- Laqueur, E. See also Borehardt, E., and Dingemanse, E.
- Lardy, G., and Du Pont Rayon Co., treatment of threads or fabrics containing cellulose acetate, (P.), B., 1107*.
- Large, A. See Hartmann, F.
- Largha, L. von. See Schönborg, A.
- Larison, E. L., manufacture of high-analysis phosphates, B., 102.
- Larkin, D., recovering vapours of varnishes, etc., (P.), B., 571.
- Larkum, N. W., and Semmes, M. F., filtration of bacteriophage, A., 644.
- Larmour, R. K., relation between protein content and quality of wheat, as shown by different baking methods, B., 593.
- La Rosa, F. See Cambi, L.
- Larsen, B. M., effect of manganese on distribution of carbon in steel, B., 865.
- Larsen, C. C., apparatus for recovery of valuable constituents in coal, peat, lignite, etc., (P.), B., 310.
- Larsen, L. M., and Grunder, A., effect of ageing on the drying of printing inks, B., 68.
- Larsen, W. R. B., production of photographic plates, films, or papers for photography in natural colours, (P.), B., 487.
- Larsky, A. W. See From, V. C., and Rowley, C. D.
- Larson, A. T., and Lazote, Inc., manufacture of hydrogen, (P.), B., 1065.
- Larson, E. E., differential staining method for connective tissue combined with the hematoxylin-eosin stain, A., 803.
- Larson, R. E. See Huffman, C. F.
- Larsson, E., alkalimetric titration of aliphatic mercapto-acids, A., 234.
- solubility of acids in salt solutions. II. Solubility of benzoic acid and activity coefficient of its molecules in aqueous benzoate solutions, A., 995.
- solubility of acids in salt solutions. III. Solubility of benzoic acid and the activity coefficient of its molecule in solutions of sodium chloride and of potassium chloride, A., 995.
- dissociation constants of alkylthiolacetic acids, A., 1021.
- Larsson, J. D. See Hedman, N. O.
- Larsson, M., and Du Pont Ammonia Corporation, production of phosphoric acid and hydrogen, (P.), B., 557*.
- Larsson, T., and Norton Co., tunnel kiln, (P.), B., 1133.
- La Rue, J. B. See Seofield, S. W.
- Larvex Corporation. See Minaev, M. G.
- Larwood, C. H. See Heller, V. G.
- Lasarev, V., collision broadening of rotation-vibration spectra of gases, A., 1343.
- Lasarev, V. See also Vosnessenski, S. A.
- Lasarkevitsch, N. A. See Tananaev, N. A.
- Lasch, H., concretions of manganese ore from the Zeller lake [Upper Austria], A., 448.
- Laschkarev, V. E., structure of aluminium chloride, A., 1503.
- Lasègue, G., and Collin, (Mlle.) T., lecture demonstration of spectrograms, A., 1266.
- Laser, R. See Deutsch, W., and Jenke, M.
- Lash, M. E., and France, W. G., adsorption at crystal-solution interfaces. IV. Macroscopic ammonium, caesium, and potassium alum crystals grown in the presence of dyes and other foreign materials, A., 684.
- Laska, L. See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
- La Soudure Électrique Autogène Société Anonyme. See Alloy Welding Processes, Ltd.
- Lass, J., method of measuring the polarisation of electronic collision glow, A., 7.
- Lassen, F., and A./S. De Forenede Bryggerier, pasteuriser, (P.), B., 1051*.
- Lassieur, A. See Kling, A.
- Laszlo, D. See Hinsberg, K.
- Lategan, P. N., hydrogenation of South African coal, B., 541.
- Lathe, F. E., refining nickel-copper matte, (P.), B., 64, 565*.
- Lathrop, E. C., the Celotex and cane-sugar industries, B., 1126.
- Lathrop, E. C. See also Munroe, T. B.
- Latimer, W. M., repulsion of atomic kernels as a factor in organic rearrangements, A., 9.
- Latimer, W. M., and Ahlberg, J. E., heat capacity and entropy of potassium perchlorate from 12° to 298° Abs.; heat of solution of potassium perchlorate; entropy and free energy of perchlorate ion, A., 532.
- specific heat of barium nitrate from 15° to 300° Abs.; entropy of the nitrate ion, A., 1103.
- Latimer, W. M., and Porter, C. W., polarities and orienting influence of substituents in the benzene ring, A., 331.
- Latisehev, G. D., and Leipunski, A. J., collisions of the second kind between electrons and excited mercury atoms, A., 1493.
- La Tour, F. D. See Thibaud, J.
- Latshaw, W. L. See Gainey, P. L.
- Lathey, R. T., and Perrin, M. W., mechanism of a simple voltaic cell, A., 707.
- Lau, A., [printing] reserves under aniline black on wool, B., 415.
- Lau, E., multiplex-interference spectroscopy, A., 1333.
- Lau, E., and Reichenheim, O., gas discharge in hydrogen. I. and II., A., 123, 829.
- detection of excitation potentials of various spectra in gaseous discharge, A., 267.
- Lau, E. See also Finkelnburg, W.
- Laubgayer, A. W., and Fleckenstein, R. H., purification, properties, and methods of using zinc diethyl, A., 1565.
- Lauber, E. R., [electric] furnace for production of aluminium, (P.), B., 823*.
- Lauber, H., formation of calcium sulphate in the tower-liquors of the sulphite-pulp process, B., 861.
- Laucks, I. F., Cone, C. N., and Laucks, Inc., I. F., manufacture of glue, (P.), B., 1032.
- Laucks, I. F. See also Greene, F. C., and Rippey, H. F.
- Laucks, Inc., I. F. See Laucks, I. F.
- Lauder, J. G. See Brit. Insulated Cables, Ltd.
- Laue, M. von, dynamics of edge layers of a crystal of sodium chloride type, A., 834.
- Laue, M. von, and Rupp, E., electron diffraction at non-metallic uni-crystals, A., 834.
- Laue, M. von, and Siljeholm, G., thermal electron emission and heat energy, A., 1355.
- Lauenstein, C. F., and Link-Belt Co., [production of] metal [cast iron], (P.), B., 1075.
- Lauer, W. M. See Kolthoff, I. M.
- Laufenberg, W., significance of formation of lead-oil aggregates ("lead soaps"), B., 337.
- Lauffer, P. G. I. See Bogert, M. T.
- Laug, E. P., determination of the p_H of serum and plasma by the quinhydrone electrode, A., 1462.
- Laughlin, W. C. See Laughlin Filter Co.

- Laughlin Filter Co., and Laughlin, W. C., centrifugal machine, (P.), B., 125.
- Launoy, L., and Engler, (Mlle.), index of trypanocidal activity of certain aryl derivatives of arsenic acid, A., 1473.
- Launoy, L., and Nicolle, P., comparative effects of natural and synthetic d-, l-, and r-ephedrine on the blood-pressure, A., 812.
- Lauprêtre, (Mlle.) L. See Sauvageot, M.
- Laurence, C. K. See Beattie, J. A.
- Laurence, J., determination of morphine in tablets and pills, B., 531.
- Laurent, A., liquid fuel, (P.), B., 807*.
- Laurent, (Mlle.) Y. See Rathery, F.
- Laurie, A. P., identification of pigments used in painting at different periods, and other methods of examining pictures, B., 569.
- Lauro, M. See Whitmore, W. F.
- Lauro, M. F. See Trevithick, H. P.
- Laury, N. A., and Wiarda & Co., J. C., manganese-compound recovery, (P.), B., 713*.
- Laury, N. A. See also Calco Chem. Co.
- Lauster, F., electric conductivity of fused silica, A., 142, 676.
- Lautenschläger, C. L., Bockmühl, M., Schwabe, R., and Winthrop Chemical Co., Inc., preparation of solutions of medicaments, (P.), B., 1005*.
- Lautsch, W. See Paneth, F.
- Laux, J. See I. G. Farbenind. A.-G.
- Laux, P. C. See Spray, R. S.
- Lavers, H., and Taplin, B., recovery of copper from ores, etc., (P.), B., 18.
- Laves, E. See Schroeter, G.
- Lavin, G. I., and Bates, J. R., exit gas from an ammonia discharge tube, A., 659.
- Lavin, G. I., and Reid, E. E., effect of dissociated water vapour on vegetable oils, B., 777.
- Lavin, G. I., and Stewart, F. B., production of hydroxyl by water vapour discharge, A., 173.
- Lavin, G. I. See also Taylor, Hugh S., and Urey, H. C.
- Lavrov, F. A. See Malinowski, A. E.
- Lavrov, J. N. See Lazarev, N. V.
- Lavrovitsch, N. S., graphite from Koschary-Alexandrov, A., 1017.
- Lavrovskaja, D. See Burstein, R.
- Lavrovski, K. P. See Skita, A.
- Law, A. C., and Mutch, G., absorption in hydrogen gas of hydrogen positive rays, A., 1232.
- Law, G. H., and Johnson, T. B., diaryl sulphides. III. Synthesis of thiothyronine, A., 1434.
- Law, R., segregation in certain non-ferrous alloys, B., 16.
- Lawaczek, F., and Lawaczek Ges.m.b.H., electrolytic cell, (P.), B., 916*.
- Lawaczek Ges.m.b.H. See Lawaczek, F.
- Lawes' Chemical Manure Co., Ltd. See Smith, H. A.
- Lawhon, C. D., and Fulton Syphon Co., soldering [and brazing] flux, (P.), B., 719.
- Lawrence, A. S. C., precipitation of soaps, particularly stearolates, from aqueous solution, A., 292.
- soap films and colloidal behaviour, A., 413.
- stability of soap films, A., 992.
- Lawrence, C. D. See Farmer, E. H.
- Lawrence, C. H., and Rowe, A. W., endocrine glands. V. Adrenals, A., 492.
- Lawrence, E. O., and Dunnington, F. G., early stages of electric sparks, A., 511.
- Lawrence, E. O., and Linford, L. B., effect of intense electric fields on the photo-electric properties of metals, A., 1335.
- Lawrence, H. S. See United Water Softeners, Ltd.
- Lawrence, J. H. See Kodak, Ltd.
- Lawrence Leather Co., A. C. See Shoemaker, J. G.
- Lawrie, J. P., determination of silver in photographic emulsions, B., 640.
- jelly strength of photographic gelatin, B., 1092.
- Lawrie, L. G. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Lawson, R. W., lecture demonstration of lattice planes in two dimensions, A., 1396.
- Lawson, R. W. See also Holmes, Arthur.
- Laxa, O., milk of the silver fox, B., 437, 1044.
- relation between constants of butter fat, B., 880.
- Laxton, A. E. See Shilling, W. G.
- Lay, E., Mattick, C., and American Lurgi Corporation, hard solder particularly for grey pig iron, cast steel, iron, etc., (P.), B., 64*.
- Lay, E. See also Metallges. A.-G.
- Lazarev, N. V., toxicology of "benzene," A., 1062.
- Lazarev, N. V., and Kremneva, S. N., toxicity of vapours of cyclopentane and its homologues, A., 639.
- Lazarev, N. V., Lavrov, J. N., and Matveev, A. P., polarity of the molecule, interfacial activity, and the theory of narcosis, A., 496.
- Lazarev, V. A. See Vosnessenski, S. A.
- Lazarkevitsch, N. A., borax and mercuric oxide as standard substances for all methods of volumetric analysis, A., 309.
- Lazarkevitsch, N. A. See also Tananaev, N. A.
- Lazarus, L. H. See McBain, J. W.
- Lazarus, M., electric rectifying device, (P.), B., 335.
- Lazier, W. A. See Du Pont de Nemours & Co., E. I.
- Lazote, Inc. See Larson, A. T.
- Lazzell, C. L. See Collett, A. R.
- Leach, H. See Macht, D. I.
- Leach, J. G., Johnson, H. W., and Parsons, H. E., use of acidulated mercuric chloride in disinfecting potato tubers for the control of *Rhizoctonia*, B., 297.
- Leach, S. H., sugar-cane and similar mills, (P.), B., 682.
- Leader, S. D. See Karelitz, S.
- Leader, V. R., experimental production of pellagra in rats. I., A., 1311.
- Leake, C. D. See Crandall, L. A.
- Leamon, W. G., conversion of heavy mineral oils into lower-boiling products, (P.), B., 807*.
- Leander, C. T., mechanical developments in water treatment practice, B., 219.
- Leather Makers' Process Co. See Allen, W. H.
- Leathwood, M. N. See Wood, A. R.
- Leavenworth, C. S. See Pucher, G. W., and Vickery, H. B.
- Leavenworth, H. T., process and agent for carotting furs, (P.), B., 321.
- Leaver, E. S. and Woolf, J. A., effect of copper and zinc in cyanidation with sulphide-acid precipitation, B., 148.
- Leavey, G. E. See Kelly, T. D.
- Lebeau, P., fuels yielding power gas, B., 4.
- Lebedenko, N., sensitisation of colloid layers (gelatin, glue, etc.) by treatment with aqueous sensitising solutions, particularly dichromate solutions, (P.), B., 121.
- Lebedev, A. N., cell-free fermentation, A., 113.
- mechanism of alcoholic fermentation, A., 374.
- Lebedev, S. V., preparation of diolefines directly from alcohols, (P.), B., 939.
- Lebedev, S. V., and Kobliansky, G. G., polymerisation. XII. Polymeric forms of isobutylene, A., 316, 572*.
- polymerisation. XIII. Depolymerisation of the polymeric forms of isobutylene, A., 1017.
- Lebedev, S. V., and Platonov, M. S., catalytic hydrogenation of unsaturated compounds. V. Hydrogenation of cyclic ethylenic derivatives and of their mixtures, A., 587.
- Lebediantzev, A. N., field and vegetation experiments with nitrogenous fertilisers in 1927, B., 74.
- field experiments with phosphate in 1927, B., 75.
- effects of raw phosphate on the soil, B., 630.
- Lebedinskaja, O. See Dobias, A.
- Le Bel, J. A., fermentation of gelatin, A., 959.
- Le Blanc, M., and Harnapp, O., electrometric determination of calcium-ion concentration, A., 968.
- Le Blanc, M., and Quenstädt, J., solubility of sodium chloride-silver chloride mixed crystals in pyridine and X-ray analysis of the mixed crystals, A., 1511.
- Le Bos, E., mechanical dissolution apparatus, (P.), B., 269.
- Le Boucher, L., supposed cases of co-ordination number 5; nickel thiosulphate amines, A., 1391.
- Leboncq, J., 1- and 2-substituted semicarbazides; 1- and 2-benzylsemicarbazides, A., 467.
- Leboncq, J. See also Bougault, J.
- Le Breton, E. See Kahn, M.
- Le Brocq, L. F. See Sutton, H.
- Lecat, M., prediction of binary azeotropism, A., 146.
- azeotropism in binary systems consisting of an alcohol with an amine, a nitro-derivative, an ether, or water, A., 404.
- relations between the behaviour during distillation of a binary system and the shape of the temperature-vapour pressure curves of the components, A., 405.
- distillation of a binary mixture and the form of the (*p-t*) curves of its constituents, A., 536.
- separation of azeotropes, A., 536.
- application of azeotropy to qualitative organic analysis, A., 628.

- Lecat, *M.*, binary systems for which the b. p. curves are practically straight lines, A., 680.
 new azotropic binary systems, A., 680.
 application of azotropism to chemical analysis, A., 724.
- Lechler, *P.*, manufacture of asphalt emulsions [using soap as emulsifying agent], (P.), B., 978.
- Lechler, *P.* See also Mezger, *P.*
- Lechluder, *F.*, Miller, *H.*, and Hartley, *J. F.*, exposure tests of white pigments in various vehicles, B., 68.
- Lechyev, *V. M.* See Budnikov, *P. P.*
- Le Clech, *J.* See Soc. en Nom Collectif Électricité Gén. R. Pontière.
- Leclerc, *E.* See Joassart, *N.*
- Lecocq, *E.*, sizing of paper, (P.), B., 656.
- Lecocq, *E.*, and Société Générale de Fours à Coke Système Lecocq Société Anonyme, coke oven, (P.), B., 753*.
- Lecœuvre, practical corrosion tests on caissons, B., 1073.
- Lecomte, *J.*, infra-red spectra of liquids, A., 12.
- Lecomte, *J.* See also Andant, *A.*
- Lecoq, *R.*, effect of heat on the sugars entering into the composition of chocolate pastes, B., 739.
 analysis of chocolate. I. Determination of the components of pure chocolate consisting entirely of cocoa, sugar, and cacao butter, B., 1129.
- Lecoq, *R.* See also Randoin, *L.*
- Lécorché, *H.*, elimination of dextrose in the stabilisation of nitro-cellulose, B., 795.
- Lecuir, *R.* See Pascal, *P.*
- Ledeboer, *P. H.*, and Staatsyndicaat Ledeboer II, working up iron ores in a direct way, (P.), B., 671*.
- Lederer, *E.* See Späth, *E.*
- Lederer, *B. A.* See Westinghouse Lamp Co.
- Lederer, *E. L.*, physical properties of the fatty acids, A., 1235.
 physico-chemical properties of fatty acids, B., 24.
- Lederer, *K.* See Fresenius, *L.*
- Lederer, *M.* See Polayes, *S. H.*
- Lederer, *P.* See Marcusson, *J.*
- Lederle, *B.*, ultra-violet absorption of alkali and alkaline-earth halides, zinc iodide, cadmium bromide, cadmium iodide, mercuric bromide, and mercuric iodide in aqueous and non-aqueous solutions, A., 1497.
- Lederle, *E.* See also Scheibe, *G.*
- Lederle, *P.* See Gronover, *A.*
- Ledermann, *L.*, Koch, *R.*, and Kùpker, *G.*, plastic material, (P.), B., 294.
- Ledin, *S. H.*, and Nauclér, *J. O.*, evaporation of liquids [sulphite lye] and apparatus therefor, (P.), B., 399.
- Lee, *A. R.* See Bengough, *G. D.*
- Lee, *J. van der*, action of nitric acid on ethylene derivatives. III. Properties of the nitration products of some esters of nitro-cinnamic acids, A., 87.
- Lee, *J. A.*, evaporation of electrolytic caustic soda, B., 860.
- Lee, *L. L.* See Joffe, *J. S.*
- Lee, *R. F.* See McKay, *R. F.*
- Lee, *S.*, change of sensitivity of animals with diet. I., A., 503.
- Lee, *W.*, heavy oils and lubricants, B., 699.
- Lee, *W. B.*, adhesives and adhesion; mechanical properties of materials and glued metal joints, B., 797.
- Lee, *W. B.* See also Fulton, *R. A.*
- Leech, *B.*, and Hammond, *F.*, electrolytic deposition of alloys, (P.), B., 290.
- Leeds De-Tinning, Ltd., and Calvert, *A. W.*, furnaces for de-tinning metal plates and other articles or surfaces coated with block tin or other similar material, (P.), B., 427.
- Leeds & Northrup Co. See Schofield, *W. R., jun.*
- Leek, *A. E.*, heat interchanger, (P.), B., 747*.
- Leeper, *G. W.*, thiocyanate method of determining iron; influence of different classes of phosphates, A., 1012.
- Leermakers, *J. A.* See Gilman, *H.*
- Leersum, *E. C. van*, vitamins and foodstuffs, A., 647.
- Lees, *J. H.* See Olin, *H. L.*
- Leeuwen, *E. R. van*. See Meulen, *P. A. van der*.
- Lefebvre, *G. G. J.*, and Berger, *E. E. F.*, road-making materials and construction of roads, (P.), B., 666.
- Lefebvre, *F. E.*, and Oxyhydrique Française, apparatus for production of hydrogen, (P.), B., 419*.
- Lefèvre, *J.*, and Auguet, *A.*, effect of humidity of the air on metabolism; hypotony in warm and moist atmosphere, A., 367.
- Le Fèvre, *R. J. W.*, orienting influence of oxonium oxygen; the nitration of 2-phenylbenzopyrylium perchlorate and ferri-chloride, A., 217.
 nitration of 2'- and 4'-nitro-1-phenylpiperidines, A., 350.
- Le Fèvre, *R. J. W.*, and Mathur, *F. C.*, comparison of the directive powers of elements having consecutive atomic numbers. II. Mononitrations of 2-phenylquinolino and its methosulphate, A., 1595.
- Le Fèvre, *R. J. W.*, and Turner, *E. E.*, orientation effects in the diphenyl series. VIII. Nitration of 4:4'-difluorodiphenyl, A., 901.
- Leffmann, *H.*, and Pines, *C. C.*, tests for isopropyl alcohol, A., 318.
 quality of commercial [ethyl] ether, B., 360.
- Lega, *G.*, influence of insulin on the characteristics of the blood, the velocity of sedimentation of erythrocytes, and the times of hemorrhage and of coagulation, A., 1611.
 experimental glycemia in diabetes mellitus during insulin therapy, A., 1611.
- Legendre, resistance to sea-water of special light aluminium alloys, B., 1073.
- Legendre, *R. A.*, preservation of grain, etc., (P.), B., 1089*.
- Legg, *V. H.*, and Wheeler, *R. V.*, plant cuticles. I (contd.). Modern plant cuticles. II. Fossil plant cuticles, A., 259.
- Le Goff, *J. M.*, cobalt as vaso-dilator, A., 498.
- Legrand, *P.*, comparison of the official pepsins of various pharmacopœias: correspondence between the different titres, B., 37.
 pulverising mills, (P.), B., 306.
- Legris, *R.* See Bruhat, *G.*
- Lehalleur, *J. P.*, preparation of hydrocellulose in the cold and by disintegration, B., 96.
 determination of hydrocellulose and oxycellulose in commercial celluloses, B., 96.
 recovery of iodine in manufacture of nitric acid, B., 101.
 production [from lemons] of citric acid in Brazil, B., 182.
 decomposition of nitrocelluloses by volatile solvents, B., 303.
 action of volatile solvents on cellulose nitrate powders, B., 930.
- Lehman, *A. J.*, and Lynn, *E. V.*, leaf oils of Washington conifers. I. Introduction, B., 1003.
- Lehmann, *A.* See Électro Matériel.
- Lehmann, *E.*, aid to gravimetric analysis, A., 310.
 basalt of the Stöf, Westerwald [Nassau], A., 733.
- Lehmann, *E. F. E.*, manufacture of [light]-sensitised element, and production of photographic images thereon, (P.), B., 1047.
- Lehmann, *F. A.*, [pharmacology of] *Allium sativum*, A., 370.
- Lehmann, *G.* See Manchot, *W.*
- Lehmann, *J.*, p_H measurements with the quinhydrone electrode in succinodehydrogenase solutions at 37°, A., 112.
 methylene-blue method for the study of biological dehydrogenation. I. p_H measurements with the quinhydrone electrode at 37° in succinodehydrogenase solutions in presence of methylene-blue, A., 112.
 methylene-blue method for the study of biological dehydrogenation. II. Preparation of succinodehydrogenase solutions and determination of their activity, A., 814.
 biological oxidation-reduction potentials; system succinate-fumarate-succinodehydrogenase, A., 1619.
- Lehmann, *J. V.* See Newton, *R.*
- Lehmann, *P.*, effect of turbulence [of the atmosphere] on the carbon dioxide exchange in plants, A., 1322.
- Lehmann, *W.* See Curtius, *T.*
- Lehmstedt, *K.*, and Hundertmark, *H.*, acridine. V. Two isomeric *ms*-tetrahydro-9:9'-diacridyls, A., 926.
- Lehnartz, *E.*, [electro]titration curves of ortho- and pyro-phosphoric acid, A., 860.
- Lehnartz, *M.* See Embden, *G.*
- Lehreke, *H.*, and Roessler & Hasslacher Chemical Co., stabilisation of hydrocyanic acid, (P.), B., 1152*.
- Lehrer, *E.*, iron-hydrogen-ammonia equilibrium, A., 996.
 iron-nitrogen system; magnetic investigation, A., 1121.
- Lehrer, *E.* See also Keunecke, *E.*
- Lehrman, *L.*, fatty acids associated with wheat starch, A., 451.
- Leibensohn, *E. A.* See Katz, *G. J.*
- Leiber, *F.*, absorption spectra of dye-gelatin layers before and after exposure to daylight, B., 218.
- Leiboff, *S. L.*, absence of calcium from the human red blood-corpuscle, A., 490.
 multiple standard colorimeter for p_H determinations, A., 883.
 detection of blood by means of benzidine hydrochloride, A., 1461.
 determination of blood-non-protein-nitrogen, A., 1462.

- Leiboff, S. L., and Koppel, D., Folin's micro-method for the determination of blood-sugar, A., 1463.
- Leiboff, S. L., and Witchell, I. S., use of sodium citrate as anti-coagulant in the chemical examination of blood, A., 1463.
- Leibowitz, J., influence of salts of potassium, calcium, strontium, barium, and magnesium on respiration of isolated kidney tissue, A., 1613.
- Leibowitz, J. See also Kisch, B.
- Leicester, F. D. See Imperial Chem. Industries, Ltd.
- Leicester, H. M., and Bergstrom, F. W., salts of triphenylselenonium hydroxide, A., 231.
- Leighton, A., application of physical chemistry to ice-cream, B., 637.
- Leighton, A., and Kurtz, F. E., basic viscosity and plasticity of ice-cream mixes, B., 80.
- Leighton, A., and Williams, O. E., physics of the ice-cream mix. I. Relationship between basic viscosity and whipping capacity of ice-cream mixes, B., 80.
- Leighton, P. A., and Dresia, W. F., effects of substituents on quantum efficiency in the quinone-alcohol reaction, A., 1385.
- Leighton, P. A., and Forbes, G. S., photochemical decomposition of benzoquinone in water and in alcohol, A., 174.
- Leighton, P. A. See also Harrison, G. R., and Redeker, H. E.
- Leighton, W. G., and Forbes, G. S., precision actinometry with uranyl oxalate, A., 1260.
- Leighty, W. R., and Shorey, E. C., carbon-nitrogen relationships in soils, B., 1123.
- Leikola, E., identity of hæmatoporphyrins from various species of blood, A., 1200.
- Leikola, E., and Kerppela, W., determination of the shade and intensity of colour of liquids, A., 446.
- Leikola, E. See also Kerppela, W.
- Leimbach, G., lixiviation of Chili salpêtre at various temperatures, B., 322.
- Leinati, F., value of Smith's method [of staining] with Nilo-blue sulphate in differentiation of neutral fats from the corresponding fatty acids and soaps, A., 1465.
- Leinzinger, M. See Issekutz, B. von, and Tukato, S.
- Leipnanski, A. J., and Schechter, A., dissociation by collision with positive ions, A., 392.
- Leipnanski, A. J. See also Kondratév, and Latishev, G. D.
- Leiser, H., producing a coating of chromium on objects of iron, steel, or aluminium, and particularly on knives, fork, and spoons, (P.), B., 20.
- Leiss, C., camera for structural investigations, A., 845.
- Improved quartz spectrograph, A., 1225.
- Leiste, E., surface conductivity of compressed amber, A., 1102.
- Leites, S., thyroxine, fat and lipid metabolism, A., 962.
- Leithe, W., relationship between optical rotatory power and refraction of simple amines and alcohols, A., 752.
- optical rotatory power and constitution of certain bases of the type of tetrahydroberberine, A., 1455.
- Leitmeier, H., and Feigl, F., detection of fluorine in minerals and rocks, A., 51.
- detection of magnesium in minerals, A., 1264.
- Leitmeier, H. See also Feigl, F.
- Leitner, F., practical importance of the influence of different cooling conditions on the structure of steel ingots, B., 909.
- Leitner, H., [plastic mass for] electric accumulator [plates], (P.), B., 429.
- Leitner, N., oligodynamic action, A., 503, 961.
- influence of electrolytes on the bactericidal action of copper and silver salts; dependence of bactericidal action on the electrostatic charge of bacteria (explanation of the so-called salt inhibition of oligodynamic action), A., 960.
- Lejeune, G., equilibrium of cerous and perceric salts, A., 1520.
- Lejeune, G. See also Marie, C.
- Lejmark, R., imparting compactness and coherence to a granular mass contained in a mould, and building block made therewith, (P.), B., 692.
- Le Juge, S. von. See Atlas-Werke A.-G.
- "Le Ketol." See Soc. des Brevets Étrangers Lefranc & Cie.
- Lélhaleur, J. P., determination of organic nitro-compounds and inorganic nitrates by reduction in acid media, A., 1198.
- Lellep, O., burning cement in rotary kilns, (P.), B., 990*.
- Lemaire, A. See Loeper, M.
- Lemala, P. C., concentration of liquids at very low temperatures, (P.), B., 223.
- Lemarchands, J., proportions and localisation of carbohydrates in the seeds of *Helianthus annuus* and their variations during germination, A., 258.
- Lemberg, R., pigment of red algæ, A., 122.
- chromoproteins of red algæ. II. Scission with pepsin and acids; isolation of a pyrrole colouring matter, A., 488.
- extinction of light by [solutions of] chromoproteins of algæ, A., 827.
- Lemke, A. See Biltz, W.
- Lemke, G. See Braun, J. von.
- Lemmermann, O., use of citric acid in the examination of soils and fertilisers, B., 207.
- determination of the phosphate requirement of soils by the Lemmermann-Fresenius citric acid method, B., 257.
- present-day laboratory methods for determination of the fertiliser requirement of soils, B., 341.
- Lemmermann, O., and Fresenius, L., soil acidity and absorption, B., 254, 1041.
- relation between reaction condition of soils and plant growth, B., 259.
- Lemmermann, O., Jessen, W., and Engel, H. [with Bortels, H., Schmelling, von, and Lesch, W.], significance of the carbon : nitrogen ratio, and other chemical properties of organic materials in the action [in soils], B., 875.
- Lemmermann, O., and Liesegang, H., relations between potash fertilisation and the effect of light, B., 876.
- Lemoigne, M., and Chaminade, R., determination of p_H of [biological] media, A., 1142.
- Lemoigne, M., and Monguillon, P., acetylmethylcarbinol and butylene β -glycol in the higher plants during germination, A., 71.
- acetylmethylcarbinol and β -butylene glycol in the blood of the higher animals, A., 1201.
- Lemon, H. B. See Koch, E. M.
- Lempen, H. See De Diesbach, H.
- Lenander, N. E., and Ryen, I., treatment of lyes containing copper and zinc, (P.), B., 661.
- Lende-Njaa, J., reaction, lime content, and lime requirement of soils, B., 256.
- Lenfeld, J., detection of fats in ultra-violet light, B., 620.
- Lengersdorff, M. See Lengersdorff, W.
- Lengersdorff, W., and Lengersdorff, M., preparation [drying, etc.] of ceramic articles, (P.), B., 614.
- Lenglen, and Durier, evaluation of calcareous mixtures used in agriculture, B., 435.
- Lenhard, W. See I. G. Farbenind. A.-G.
- Lenher, S., and Rollefson, G. K., photochemical formation of carbonyl chloride, A., 433.
- Lenher, S., and Taylor, G. B., anhydrous magnesium perchlorate as a drying agent, A., 568.
- Lenher, S. See also Kistiakowsky, G. B.
- Lenher, V. See Hoffmann, G. F., and Hurd, L. C.
- Lenkhöld, V. A., formation of β -naphthylamine by nitrating naphthalene and reducing, A., 1174.
- Lenkhöld, V. A., and Ostroumov, E. A., composition of residual tar after distilling α -naphthylamine in a vacuum, A., 1174.
- Lennik, W., determination of the position of the axis of symmetry of a crystal by means of X-rays, A., 19.
- Lenning, A. See Electrolux, Ltd.
- Lennox, W. G., and Leonhardt, Erna, oxygen and carbon dioxide content of venous blood, A., 1606.
- Lennssen, M. H. See Michels, A.
- Lenoble, E., electrolysis of a colloidal solution of hemicellulose, B., 1104.
- Lenz, W. See I. G. Farbenind. A.-G.
- Lenze, F., purification of gas for distance transmission, (P.), B., 357.
- Lenze, F., and Metz, L., properties of cellophan and transparite, B., 707.
- Lenzmann, R. See "Kolloidchemie" Studienges.m.b.H.
- Leo, A., manufacture of a [pectin-sugar] jelly preparation, (P.), B., 928.
- Leo, M. See Wittig, G.
- Leon, M., and Harbens (Viscose Silk Manufacturers), Ltd., manufacture of artificial silk, (P.), B., 413.
- Leonard, J. W. See Briggs, T. R.
- Leonard, L. T., and Reed, H. R., comparison of some nodule-forming and non-nodule-forming legumes for green manuring, B., 1082.

- Leonard, V., and Sharp & Dohme, Inc., antiseptic composition, (P.), B., 928*.
- Leonardy, W., purification of waste water containing sludge, (P.), B., 220.
- Leoncini, V. See Mascarelli, L.
- Leone, A. See Lo Monaco, D.
- Leone, P., resistance of various celluloses to saccharification, B., 10.
extraction of pectins from lemon residues (pastaccio), B., 1168.
- Leone, P., and Occhipinti, F., utilisation of industrial vegetable residues. I. Dry distillation, B., 401.
- Leonhardt, Erich. See Trautz, M.
- Leonhardt, Erna. See Lennox, W. G.
- Léonhart, J., plant for bleaching, B., 814.
- Leonov, S., and Shchepetilnikova, A., linseed, B., 1119.
- Leontovitch, M., theory of polarisation of scattering in crystals, A., 664.
- Leontovitch, M. See also Mandelstam, L.
- Leopold, F. B., McKenna Brass & Manufacturing Co., Inc., and De Marcus, L., filter, (P.), B., 746.
- Lepape, A., and Geslin, M., radioactivity acquired by materials exposed to the action of atmospheric agents, A., 517.
- Lepeschinskaja, O. [with Smirnova, V. P.] orthrocyte membrane as a colloid system and its changes, A., 358.
- Le Petit, C. J. M. M., treatment of hides, (P.), B., 473.
- Le Petit, C. J. M. M., and Röhm & Haas Co., dehairing hides and skins and preparing them for tanning, (P.), B., 783*, 919*.
preparation of enzymic products for treatment of hides, (P.), B., 1123*.
- Lepiankiewicz, S. See Dziwowski, K.
- Lepin, L., adsorption of cholesterol, A., 1514.
- Lepin, L. See also Günther, P.
- Lepin, L. K. See Schilov, N. A.
- Lepkovsky, S., distribution of serum- and plasma-proteins in fish, A., 359.
- Lepkovsky, S., Wood, C., and Evans, H. M., dextrose tolerance in deficiency of vitamin-B, A., 1070.
- Lepkovsky, S. See also Evans, H. M.
- Le Plastrier, C. W., reduction of zinciferous materials, (P.), B., 332.
- Lepper, W., gravimetric determination of thallium in mouse poisons, B., 304.
determination of water by distillation with tetrachloroethane, B., 709.
rapid opening-up of calcium cyanamide, B., 710.
determination of sand in the presence of indigenous silica in feeding-stuffs, B., 1129.
- Lepper, W. See also Mach, F.
- Lepsoe, R., production of zinc, (P.), B., 289.
- Lerat, J., production of gas from wood, waste materials, etc., (P.), B., 405.
- Lerat, R. See Labbé, H.
- Lerberghe, G. van, calculation of the fugacities of a solution, A., 420.
- Lerberghe, G. van, and Schouls, (Mlle.) G., characteristic equation for binary gaseous mixtures, A., 292.
- Lerch, K. See Gorbach, G.
- Lerch, W., and Bogue, R. H., revised procedure for determination of uncombined lime in Portland cement, B., 907.
- Lerch, W. B., and Dewar, J. S., treatment of emulsions of mineral oils, (P.), B., 701.
- Lerner, M. M. See Raalte, A. van.
- Leroux, D. See Schlössing, A. T.
- Leroux, J. A. A., and Raub, E., behaviour of silver and of silver-copper alloys on ignition in oxygen and air, A., 719.
- Leroux, J. A. A., Raub, E., and Fröhlich, K. W., behaviour of natural and artificial pearls in ultra-violet light, A., 396.
- Leroy, M. N., preparation of fine-grain plates, B., 441.
- Leroy, R. See Hendricks, B. C.
- Lerrigo, A. F., routine detection of nitrates in milk, B., 837.
- Lesbre, M. See Meunier, L.
- Lesch, W. See Jessen, W., and Lemmermann, O.
- Lesche, E., ageing of aqueous ferric chloride solutions, A., 1116.
- Leshoev, V. M. See Budnikov, P. P.
- Lesiuk, J., sealing compositions [sealing-wax substitutes], (P.) B., 1121.
- Lesley, B. E. See Nichols, P. F.
- Lesley, W. J., reactions between hydrophilic sols. II., A., 413.
- Lespieau, R., "phenyltrimethylene," A., 900.
 β -dibromides and trimethylene hydrocarbons, A., 1401.
- Lespieau, R., and Bourguet, M., an ethylenic erythritol [Δ^4 -hexene- $\alpha\beta\gamma\delta$ -tetrol], A., 450.
chemical constitution and Raman effect, A., 1091.
- Lespieau, R., and Deluchat, *p*-divinylbenzene and *p*-diacetylonylbenzene, A., 588.
- Lessheim, H., and Samuel, R., types of linking in diatomic molecules, A., 842.
- Lessing, R., treatment of materials with binders in the briquetting of such materials, (P.), B., 181*.
coal cleaning, with special reference to Japanese coals, B., 225.
economic value of coal cleaning in relation to the problem of dust and sulphur emission from chimneys, B., 1098.
treatment [cleaning] of carbonaceous materials, (P.), B., 1141*.
- Lessing, R. See also Clean Coal Co., Ltd.
- Lesslie, (Miss) M. S., and Turner, E. E., optical resolution of 2:4-dinitro-2'-methylidiphenyl-6-carboxylic acid, A., 1287.
- Lesure, A., and Dunez, A., determination of sulphur in blood-serum and organic products, A., 122.
- Leszynski, W., photochemistry of silver halides, A., 305.
preservative for photographic industry, B., 37.
- Le Thomas, A., rotary cylindrical furnace for melting foundry cast iron, B., 949.
- Lettenmayer, L. See Rothenheim, C. A.
- Lettré, H., isomerides of ergosterol and dihydroergosterol, A., 910.
- Leuchs, H., and Hoffmann, Alfred, *Strychnos* alkaloids. LIV. Relationship of the three C_{17} series of the degradation of brucine, A., 624.
- Leuchs, H., and Kröhnke, F., *Strychnos* alkaloids. LV. Oxidation of strychnidine and experiments with the C_{17} and C_{19} acids from brucine, particularly the conversion of $C_{17}H_{22}O_6N_2$ into the Hanssen acid, $C_{16}H_{20}O_6N_2$, A., 936.
- Leuchs, H., and Wegener, W., *Strychnos* alkaloids. LVI. Transformations of 2:3-diketonoacidine, 2:3-diketonoic acid hydrate, and carboxyapocynine, A., 1455.
- Leuchs, K. See Dents. Zellstoff-Textilwerke Ges.m.b.H.
- Leuchs, O. See I. G. Farbenind. A.-G.
- Leuchtenberger, F., alkalinity of the blood of domestic animals, A., 236.
- Leukel, W. A., Barnette, R. M., and Hester, J. B., composition and nitrification studies on *Crotalaria striata*, B., 75.
- Leulier, A., and Arnoux, G., halogenation of arylamines with the hydrogen halide and hydrogen peroxide mixture, A., 1279.
- Leulier, A., and Dreyfuss, Y., determination of arsenic in some phenylarsinic acids, B., 82.
- Leulier, A., and Policard, A., cholesterol of crustacea, A., 1204.
- Leulier, A., and Revol, L., localisation of virtual adrenaline, A., 491.
distribution of cholesterol and its esters in the suprarenal capsules, A., 632.
- Leulier, A., and Sedaillan, P., affinity of the diphtheria bacillus towards copper, A., 1219.
- Leupold, E. O. See Staudinger, H.
- Levallant, R., reactions of sulphurous esters, A., 319.
- Levalt-Ezerski, M., ebullioscopic constants, A., 31.
actual concentration of solutions and the investigation of their surface properties, A., 852.
- Levene, P. A., [preparation of] bromoacetone, A., 746.
vitamin-B, A., 1222.
- Levene, P. A., and Jorpes, E., melibiose, A., 749.
separation of ribopolynucleotides from thymonucleic acid, and of purine bases from ribopolynucleotides, A., 803.
- Levene, P. A., and Mikeska, L. A., Walden inversion. XIII. Influence of substituent groups on optical rotation in α -substituted aliphatic acids, A., 63.
- Levene, P. A., Mikeska, L. A., and Mori, T., carbohydrate of thymonucleic acid, A., 455.
- Levene, P. A., Mikeska, L. A., and Passoth, K., Walden inversion. XIV. Influence of substituent groups on optical rotation in α -phenylaliphatic acids, A., 1287.
- Levene, P. A., and Raymond, A. L., action of perbenzoic acid on substituted glucals, A., 1411.
- Levene, P. A., Rothen, A., Steiger, R. E., and Osaki, M., structure and rate of hydrolysis of diketopiperazines. II. Hydrolysis by alkali, A., 788.
- Levene, P. A., and Steiger, R. E., racemisation. IX. Action of alkali on diketopiperazines; action of hydrochloric acid on amino-acids, peptides, and diketopiperazines, A., 788.
- Levene, P. A., and Stevens, P. G., configurative relationships of aromatic carbinols, A., 1178.

- Levene, P. A., and Walti, A., [preparation of] *l*-propylene glycol, A., 736.
 [preparation of] acetol, A., 746.
- Levenson, H., determination of centralite in double-base, smokeless powders, B., 930.
- Lever Bros., Ltd., Pritchard, P., and Craig, R., apparatus for bringing liquids and gases, or different liquids, into intimate contact, (P.), B., 590.
- Le Vesconte, A., Buchanan, J. H., and Levine, M., biological determination of dextrose, A., 1220.
- Levi, F., spark potential in helium, A., 1328.
- Levi, G. See Wigglesworth, H.
- Levi, M. See Herz, W.
- Levi, M. G., fuels of Italy, B., 646.
- Levi, M. G., Padovani, C., and Mariotti, A., hydrogenation of fuels, B., 1053.
- Levi, T. G., quebrachitol from the serum of *Hevea* latex, A., 91.
 new type of quaternary ammonium compound in which hydrogen is completely or partly substituted by aldehydic residues, A., 896.
- Levi, T. G., and Gimignani, L., methylenedithiocarbamic acid and derivatives, A., 75.
 "carbothialdines" and alkylidenedithiocarbamic acids, A., 227.
- Le Viet, K. See Meunier, L.
- Levin, B. See Gibson, C. S.
- Levin, E. I., manufacture of a pure, constant yeast, (P.), B., 880.
- Levin, H. L. See Bataafsche Petroleum Maats.
- Levine, I. M. See Faragher, W. F.
- Levine, M., biological purification of creamery wastes, B., 122.
 rapid determination of the colon group [in water], B., 488.
- Levine, M., Jenks, H. N., and Nelson, F. G., comparison of diffused-air and stream-flow aeration in purification of packing-house wastes, B., 534.
- Levine, M. See also Burke, G. W., and Le Vesconte, A.
- Levine, S. Z. See Wilson, J. R.
- Levitov, M. See Kortsehagin, M.
- Levoz, J., preparation of pure iron and steel, (P.), B., 197.
- Lévy, A. See Darzens, G.
- Lévy, A. J. See Rony, H. R.
- Lévy, D. L., treatment of hides, (P.), B., 434, 1082*.
- Lévy, I. See Greenwald, I.
- Lévy, J. See Dupont, G.
- Lévy, (Mlle.) Jeanne, and Jullien, P., substituted benzyl ketones, $\text{CHPh}\cdot\text{CO}\cdot\text{R}'$, A., 213.
- Lévy, (Mlle.) Jeanne, and Spiras, J., action of ammonia and dimethylamine on ethylene, allylbenzene, and phenylcyclohexene oxides, and their homologues, A., 1177.
- Lévy, (Mlle.) Jeanne, and Wellisch, F., derivatives of undecenoic acid, A., 65.
- Lévy, (Mlle.) Jeanne. See also Tiffeneau, M.
- Lévy, Julius, means of dyeing yarn. (P.), B., 555.
- Levy, L. A., and Almeida Accumulators Ltd., secondary electric cells, (P.), B., 153.
 electrodes [anodes] for electric batteries, electrolytic cells, etc., (P.), B., 201.
 [cathodes for] secondary electric cells, (P.), B., 380.
 electrolytes for electric cells, (P.), B., 465.
- Levy, M., reaction of borate and sugars. III. F. p. lowering of sugars in borax solutions, A., 69.
- Levy, M., and Doisy, E. A., reaction of borate and sugars. II. Optical activity of sugars in borax solution and configuration of mutarotatory isomerides, A., 69.
- Levy, S., new-type driers ["soligenates"], B., 622.
- Levy, S. (Berlin). See Ladenburg, R.
- Levy, S. A. See Gardner, H. A.
- Levy, S. I., treatment of copper-rich materials, (P.), B., 334*.
 electrolysis of ferrous chloride, (P.), B., 516*.
- Lewin, G. See Lange, W., Traubenberger, H. R. von, and Weber, L. I.
- Lewin, J., theory of concentrated solutions. VIII. Composition of liquid-vapour phases in equilibrium in binary systems, A., 536.
- Lewin, L. N., high-vacuum distillation with the aid of liquid air and active charcoal, A., 884.
 oxidation of sulphides by perbenzoic acid. III. Oxidation of $\alpha\alpha'$ - and $\beta\beta'$ -halogeno-substituted sulphides, of $\beta\beta'$ -dihydroxy-diethyl sulphide, and unsaturated sulphides, A., 1161.
- Lewinsohn, M. See Schwarz, R.
- Lewis, A. B., coupled vibrations with applications to the specific heat and infra-red spectra of crystals, A., 1355.
- Lewis, B., chain reaction theory of rate of explosion in detonating gas mixtures, A., 1255.
- Lewis, B., and Friauf, J. B., explosions in detonating gas mixtures. I. Calculation of rates of explosions in mixtures of hydrogen and oxygen and the influence of rare gases, A., 1528.
- Lewis, B., and Schumacher, H. J., first order solid-phase reaction, A., 302.
 thermal reaction between bromine and ozone, A., 425.
- Lewis, C. H. See Travers, J. T.
- Lewis, E. J., thermal and electrical properties of beryllium, A., 280.
- Lewis, G. C., production of free carbon from hydrocarbons, (P.), B., 936.
 production of carbon [black], B., 936.
 treatment of natural gas, (P.), B., 937.
 production of finely-divided carbon or carbon black, (P.), B., 1011.
- Lewis, H. B. See Catron, L. F., Stearns, G., Wiley, F. H., and Wilson, R. H.
- Lewis, H. F., Shaffer, S., Trieschmann, W., and Cogan, H., methylation of phenol by dimethyl sulphate, B., 182.
- Lewis, I. M., inhibition of *Phytomonas malvaceara* in culture media containing sugars, A., 1218.
- Lewis, I. M., Green, T. C., and Hamilton, V., correlation of sulphite reducing and colon bacteria in water, B., 688.
- Lewis, J. F. See Dykstra, H. B.
- Lewis, J. S., low-temperature oxidation. II. Ignition of some hydrocarbons in oxygen, A., 425.
 low-temperature oxidation. III. Lag in ignition of some hydrocarbons, A., 1528.
- Lewis, J. T. See Houssay, B. A.
- Lewis, P. S. See Robson, S.
- Lewis, R. A., cooling tower, (P.), B., 1097*.
- Lewis, S. J., simple polarimetric test for sugars in jams, B., 790.
- Lewis, W. C. M. See Moelwyn-Hughes, E. A.
- Lewis, W. K., and Standard Oil Development Co., separation of hydrocarbons, (P.), B., 702.
- Lewis, W. K. See also Loomis, N. E.
- Lewis, W. L., and Stiegler, H. W., β -chlorovinylarsines, A., 1601.
- Lewis, W. L. See also Cramer, P. L.
- Ley, H., and Arends, B., ultra-violet absorption of hydroxyl ion, A., 133.
 absorption by carboxyl groups in the short-wave ultra-violet, A., 272.
 determination of amino-acids by physico-chemical methods, A., 1604.
- Ley, H., and Vanheiden, F., light absorption and constitution of complex salts. II. Aliphatic amino-acids and inner complex salts of copper, A., 661.
- Leyes, C. J., production of 1:3-[$\alpha\gamma$]butadiene, (P.), B., 807.
- Leyh, E., and Koppers Akt.-Ges., H., [regenerative] coke ovens, (P.), B., 404.
- Leyko, E., and Méhes, G., action of ephedrine on the blood-sugar, A., 111.
- L'Henreux, L. See Pieraerts, J.
- Li, T. W., biological value of the proteins of barley, rice, kaoliang, and millet, A., 638.
- Liander, H. See Gibbs, W. E.
- Liban, T., applying zinc coatings to iron articles, (P.), B., 426.
- Libbey-Owens Glass Co., production of laminated glass, (P.), B., 1111.
- Libbey-Owens Glass Co. See also Mambourg, L.
- Libby, C. E. See Kang, M. H.
- Libenson, L. See Ruiz, C.
- Libina, O. See Stscherbakov, J.
- Libmann, L., dyeing cotton and artificial silk with indigosols, (P.), B., 762.
- Lichatschev, N. D. See Ipatiev, V. N., and Orlov, N. A.
- Lichoscherstov, M. V., chlorination of phenol with dichlorocarbamide, A., 207.
 bromination of phenol with dichlorocarbamide and potassium bromide, A., 208.
- Lichtenberger, T., distillation and gasification of solid fuel, (P.), B., 497.
- Lichtenberger, T., Kaiser, L., and Meyer, Franz, extraction of gases from and gasification of fuels, (P.), B., 178.
- Lichtenecker, K., theory of mixtures as a problem in probability, A., 146.
- Lichtenstein, L. See Kuttner, T.
- Lichtenstein, R. See Ohle, H.

- Lichtenstern, *R.*, preparation of asphalt emulsions, (P.), B., 1030.
- Lichtin, *J. J.*, perchloric acid as oxidising agent in the determination of chromium [in chrome alum liquors and crystals], B., 417.
- Lichtman, *S. S.*, and Sobotka, *H.*, enzymic detection and determination of tyrosine in urine, A., 239.
- Lidov, *A. P.*, existence of carbon-nitrogen gases other than cyanogen, A., 1139.
- Lieb, *H.*, and Lanyar, *F.*, (i) alkaptonuria with minimum protein intake; (ii) alkaptonuria and carbohydrate withdrawal, A., 240.
- Lieben, *F.*, and Ehrlich, *G.*, decomposition of dextrose and of laevulose by *Bacillus coli*, A., 251.
perfusion of sugar through the tortoise, A., 636.
separation of iodine and bromine from iodinated and brominated proteins by irradiation, A., 1197.
- Lieben, *F.*, and Molnar, *E.*, oxidative degradation of physiologically important substances by Hehner's method, A., 357.
- Lieben, *F.*, and Papházy, *E. von*, hydrogenation of amino-acids, A., 1433.
- Lieberman, *A. L.*, calcium. II. Urinary output of calcium in normal individuals after oral administration of calcium lactate and calcium gluconate, A., 1471.
- Lieberson, *A.*, detection and determination of cobalt in presence of nickel, A., 1445.
- Lieberson, *A.* See also Koppanyi, *T.*
- Lieberwirth, *F.* See Grube, *G.*
- Liebhavsky, *H. A.* See Brown, *D. J.*
- Liebknecht, *O.*, composition for destroying noxious cretatures [fumigant], (P.), B., 168.
- Liebmann, *G.*, visible temperature radiation of colourless oxides, A., 1332.
- Liebmann, *G.* See also Skaupy, *F.*
- Liebowitz, *J.* See Kisch, *B.*
- Liebrecht, *A.*, and Chem.-Pharm. A.-G. Bad Homburg, production of medicaments containing bismuth, (P.), B., 1091*.
- Liebreich, *E.*, theory of local elements, A., 1376.
- Liebscher, *E.* See Stather, *F.*
- Liebscher, *W.*, influence of the addition of a mineral salt mixture to feeding-stuffs on the quantity and total constituents of milk, B., 209.
- Liempt, *J. A. M. van*, vapour-pressure curves and the calculation of van der Waals' *a* constants for metals and salts, A., 678.
- Liempt, *J. A. M. van*. See also Burgers, *W. G.*, Gen. Electric Co., and N. V. Phillips' Gloeilampenfabr.
- Liénard-Fiévet, *C.*, manufacture of yarns, (P.), B., 708.
treatment of vegetable fibres to effect their lanifaction, (P.), B., 709.
- Liepatov, *S.*, syneresis, A., 34, 858.
chemical sorption. III. Heterogeneous chemical equilibrium, A., 152.
chemical sorption. V. Theory of heterogeneous chemical equilibria, A., 152.
time-changes of emulsoids; theory of syneresis, A., 157.
structure and stability of colloidal particles, A., 290, 855.
- Liepatov, *S.* [with Sokolova, *N.*], chemical sorption. IV. Complex sorption process and hydrolysis, A., 1562.
- Lier, *S. K. D. M. van*, [coupling for] centrifugal machines, (P.), B., 846.
- Lierg, *F.*, production of pictures consisting of dyes in photographic manner, (P.), B., 487, 641*.
chemically transforming photographic silver images, (P.), B., 1092.
production of films in natural colours by a single exposure, (P.), B., 1093.
- Liesche, *E.*, method of calculating analyses. III., A., 310.
- Liesche, *O.*, indirect analysis, A., 1391.
- Liesegang, *H.*, consumption of nutrients and the process of their absorption by various vegetables, B., 475.
utilisation of increasing dressings of potash by different varieties of barley, B., 1042.
- Liesegang, *H.* See also Lemmermann, *O.*
- Liesegang, *R. E.*, formation of spirals by chemical precipitation, A., 1117.
- Lieske, *R.*, theory of the origin of fusain, A., 57.
lignin theory of the origin of coal from the biological point of view, A., 571.
biology and coal research, B., 42.
origin of coal according to the present position of biological investigation, B., 540.
- Lieske, *R.*, and Hofmann, *E.*, formation of methane from carbon monoxide and hydrogen by bacteria, B., 803.
- Lieske, *R.*, Schepss, *W.*, and Winthrop Chemical Co., Inc., disinfecting, bactericidal, insecticidal, fungicidal, and vermin-destroying preparation, (P.), B., 796*.
- Lieske, *R.* See also Bode, *H.*
- Liestmann, *W.*, and Salzmann, *C.*, tensile strength at high temperatures of steel containing small quantities of nickel and molybdenum, B., 615.
- Liethe, *W.*, optical rotation and configuration of certain bases of the type of laudanose, A., 1049.
- Lievin, *O.*, and Declerck, *J.*, kinetics of alkaline solutions of iodine; the alkali borates, A., 1378.
- Lifschitz, *I.*, and Hooghoudt, *S. B.*, Becquerel effect. III., A., 433.
- Lifschitz, *I.*, preformation of oxysterol in animal organs and tissues, A., 632.
- Liggett, *W. K.*, and Jeffrey Manufacturing Co., pulverising machine, (P.), B., 745.
pulverising apparatus, (P.), B., 1050.
- Light, *A. B.* See Fry, *E. G.*
- Light, *R. F.*, Miller, *G.*, and Frey, *C. N.*, effects of overdosage with vitamin-D, A., 119.
- Lightner, *M. W.* See Herty, *C. H., jun.*
- Lignac, *G. O. E.*, effect of ultra-violet light on the formation and alteration of skin melanin, A., 1217.
- Lignite Products Corporation of America. See Newbery, *I. B.*
- Ligor Bey, and Faillebin, *M.*, reaction of lead, A., 563.
- Lileev, *I.*, coloured clays of the Olonetz region, U.S.S.R., A., 188.
preparation of pure alumina from Tilkhvin bauzites, B., 141.
- Lilienfeld, *L.*, production of textile material, (P.), B., 53*.
improvement of cotton, (P.), B., 54*.
improvement of vegetable fibrous material, (P.), B., 98.
manufacture of artificial [silk] threads, (P.), B., 98.
manufacture of artificial thread from viscose, (P.), B., 99.
improvement of vegetable textile materials, (P.), B., 186*, 281.
improvement of (A) artificial fibrous material, (B) artificial fibres or fabrics, (P.), B., 279.
coagulation or precipitation of viscose, (P.), B., 279.
cellulose solutions, (P.), B., 901*.
- Lilienfeld, *S.*, and White, *C. E.*, reaction between hydrogen sulphide and silver, A., 556.
- Liljenroth, *F. G.*, treatment of crude phosphate, (P.), B., 187.
oxidation of ammonia, (P.), B., 239*.
producing ammonium phosphate or mixed fertilisers containing it by leaching of raw phosphate, (P.), B., 613*.
production of mixed manure containing phosphoric acid and nitrogen, (P.), B., 785*.
- Liljenroth, *F. G.* See also Kunstdunger-Patent-Verwertungs A.-G.
- Lillie, *H. R.*, Margulies' method of measuring viscosities modified to give absolute values, A., 1244.
- Lilliendahl, *W. C.* See Driggs, *F. H.*
- Lillig, *R.*, [yohimbe alkaloids. VI. Two further subsidiary alkaloids of yohimbine], A., 1600.
isomeride of yohimbine, B., 485.
- Lilly, *V. G.*, and Garland, *C. E.*, esters of cyclohexylresorcinol and *p*-cyclohexylphenol, A., 909.
- Lilly & Co., *E.* See Stuart, *E. H.*
- Lim, *C. E.*, and Kurotschkin, *T. J.*, the water-soluble substance of Friedländer's bacillus in relation to the identity of antibodies, A., 377.
- Lim, *R. K. S.*, Hou, *H. C.*, Chang, *H. C.*, and Feng, *T. P.*, basal secretion of the stomach. III. Influences of feeding bone and other hard objects, A., 633.
- Limbach, *S.*, production of nitrate in soil, B., 258.
- Liming, *O. N.*, and Young, *H. C.*, toxicity of sulphur to spores of *Sclerotinia cinerea*, as effected by the presence of pentathionic and other sulphur acids, B., 735.
- Limpach, *L.*, manufacture of 4-hydroxyquinolines, (P.), B., 1143.
- Linch, *F. W.* See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Linck, *G.*, and Heinz, *H.*, agate, A., 1016.
- Linck, *G.*, and Köhler, *B.*, scale for determining the refractive indices of liquids under the microscope, A., 314.
Bohemian clay, A., 316.
- Linek, *F.* See I. G. Farbenind. A.-G.
- Lind, *S. C.*, and Glockler, *G.*, chemical effects of electrical discharge in butane. IV. Fractionation of the liquid product, A., 190.
- Lind, *S. C.*, and Livingston, *R.*, temperature coefficient of the synthesis of hydrogen chloride by light and by α -radiation, A., 434.
- Lind, *S. C.* See also Aleya, *H. N.*

- Lindau, G., action of proteins on ferric hydroxide sol., A., 798.
 Lindberg, E., M-series of the rare earths, A., 127.
 Lindberg, N. C. See Victor Chem. Works.
 Lindblad, A. R., treatment of arsenious ore, (P.), B., 19, 1115.
 Linde, J. O. See Borelius, G. and Johansson, C. H.
 Linde, R. See Jenke, M.
 Lindeman, H. See Ornstein, L. S.
 Lindemann, H., constitution of aliphatic diazo-compounds, A., 899.
 Lindemann, H., and Baumann, H., stereoisomeric resorcitols [cyclohexane-1:2-diols] and phloroglucitols [cyclohexane-1:3:5-triols], A., 209.
 Lindemann, H., and De Lange, A., stereoisomeric polyhydroxycycloalkanes. II. Stereoisomeric pyrogallitols [cyclohexane-1:2:3-triols], A., 1575.
 Lindemann, H., and Groger, R., parachor of azo-compounds, A., 595.
 Lindemann, H., and Wiegreb, L., constitution of compounds with "bivalent" carbon, A., 1171.
 Lindemann, H., Wolter, A., and Groger, R., constitution of aliphatic diazo-compounds, A., 586.
 Lindenber, A. See Pomp, A.
 Lindenfeld, K., microanalytical determination of carbon and hydrogen, A., 489.
 Linder, F. See I. G. Farbenind. A.-G.
 Linderborg, N. G., treatment of vapours, gases, etc., (P.), B., 972.
 Linderström-Lang, K., homogeneity of intestinal dipeptidase, A., 642.
 Linderström-Lang, K., and Sato, Masakazu, determination and separation of the proteolytic enzymes in green malt, A., 113.
 Linderström-Lang, K., and Schmidt, S., purification of toxins and antitoxins, A., 819, 1220.
 Linderström-Lang, K., and Steenberg, E. M., determination of trypsin and enterokinase, A., 112.
 Lindgren, H. O., and De Laval Separator Co., centrifugal separator, (P.), B., 693.
 Lindh, A. E., K-absorption spectra of nickel, copper, and zinc, A., 1078.
 Lindhorst, H., case-hardening furnace with charging device of worm type, (P.), B., 823.
 Lindmayer, E., vulcanisation and structure of rubber, B., 112.
 Lindner, F. See I. G. Farbenind. A.-G.
 Lindner, J., sources of error in organic elementary analysis. V. Oxygen, rubber, and various accessories, A., 940.
 vessel for conducting chemical tests and measurements, e.g., titrations, (P.), B., 308.
 Lindner, J., and Hernler, F., sources of error in organic elementary analysis. IV. Copper oxide and lead chromate, A., 726.
 sources of error in organic elementary analysis. VI. Determination of hydrogen; action of copper oxide and lead peroxide, A., 1031.
 sources of error in organic elementary analysis. VII. Influence of rubber and cork material on the hydrogen values, A., 1198.
 volumetric determination of small quantities of carbon dioxide, A., 1543.
 Lindner, J. See also Weinland, R.
 Lindner, P., observations on the Stich fine-aeration process, B., 480.
 Lindow, C. W., Peterson, W. H., and Steenbock, H., copper metabolism of the rat, A., 107.
 Lindquist, F. E. See Rollefson, G. K.
 Lindqvist, A. A., [shrinking] treatment of cloth, (P.), B., 945.
 Lindsay, F. K., and Arizona Minerals Corporation, manufacture of water-softening material of the exchange-silicate type, (P.), B., 509.
 treatment of greensand or glauconite for rendering it an efficient water-softening agent, (P.), B., 712.
 Lindsay, G. A. See Kievit, B.
 Lindsay, T. See Brit. Area Regulators, Ltd.
 Lindsey, A. J., modified Gutzeit arsenic apparatus, A., 1263.
 Lindström, T. O. H. See Sandqvist, H.
 Lindt, V., loss of silica in the determination of silicon in technical iron, B., 772.
 Lindtrop, N. T., and Nikolaiev, V. M., oil and water content of Grozni oil sands, B., 595.
 Lindwall, H. G. See Hill, A. J.
 Line, W. R. See Murlin, J. R.
 Lineberry, R. A. See Cameron, F. K.
 Linen Industry Research Association, and Matthew, J. A., wet spinning of flax and similar fibres and apparatus therefor, (P.), B., 54.
 Lines, F. F., reverberatory furnace, (P.), B., 1133.
 Lineweaver, H. See Burk, D.
 Linford, L. B., soil moisture phenomena in a saturated atmosphere, B., 576.
 Linford, L. B. See also Lawrence, E. O.
 Ling, A. W. See Clarke, G. R.
 Ling, S. M. See Chang, H. C.
 Lingelsheim, A. von, action of micro-organisms on the odorous principle of rhizoma iridis, A., 376.
 Lingen, G. W. B. van der, South African pepper-tree oil, B., 685.
 Linggood, F. V., decarboxylation of pectin, A., 824.
 Linhard, M. See Birckenbach, I.
 Linhorst, E. F., apparatus for testing Dühring's law for corresponding b. p., A., 55.
 Link, and Hugon, direct measurement of atmospheric absorption, A., 731.
 Link, A. See Rojahn, C. A.
 Link, F. See I. G. Farbenind. A.-G.
 Link, J. See Meisenheimer, J.
 Link, K. P., elementary composition of the pentosan xylan, A., 894.
 Link, K. P., and Dickson, A. D., d-galacturonic acid from lemon pectin acid, A., 744.
 Link, K. P., Dickson, A. D., and Walker, J. C., protocatechuic acid in pigmented onion scales; relation to disease resistance, A., 122.
 Link, K. P., and Niemann, C., action of dilute mineral acids on uronic acids, A., 1 021.
 Link, K. P. See also Angell, H. R., Dickson, A. D., and Walker, J. C.
 Link, L. See Weller, D. R.
 Link-Belt Co. See Lauenstein, C. F.
 Linke, R. See Braune, H.
 Linkmeyer, C. R., viscose artificial silk, (P.), B., 99.
 spinning of artificial silk from cuprammonium solutions of cellulose, (P.), B., 184.
 Linnell, W. H., and Melhuish, B. W., hydroxyketones and carbohydrate structure, A., 746.
 Linneweh, F., fermentative decomposition of creatinine, A., 959.
 Linneweh, F. See also Linneweh, W.
 Linneweh, W., and Linneweh, F., constitution of anserine, A., 1049, 1194.
 Linnik, W., variation of the rotating crystal method suitable for investigations of crystal structure by X-rays, A., 669.
 Lloyd's single mirror fringes with X-rays, A., 670.
 arrangement for the inspection of photographic plates of line spectra, A., 832.
 Linnmann, W., jun., apparatus for separating liquids of different sp. gr., (P.), B., 933.
 Linoleum Manufacturing Co., Ltd., and Godfrey, A. A., manufacture of linoleum [with pattern or background in relief], (P.), B., 339.
 manufacture of linoleum, (P.), B., 468.
 Linsbauer, L. See Haitinger, M.
 Linser, E. See Fischer, Robert.
 Linser, H. See Klein, G.
 Linstead, R. P., chemistry of the three-carbon system. XXIII. Influence of substituent groups on the tautomeric change, A., 64.
 olefinic acids. II. Occurrence of spontaneous tautomeric change at temperatures near the b. p., A., 1162.
 Linstead, R. P., and Mann, J. T. W., olefinic acids. III. Homologues of terecinic, terebic, and pyroterebic acids; further evidence of effect of two γ -alkyl groups on three-carbon tautomerism, A., 1405.
 Linstead, R. P. See also Eccott, E. N.
 Lintecum, C., filtration of cyanide slimes and apparatus therefor, (P.), B., 515.
 Linton, R. W., blood chemistry in trypanosome infection, A., 1469, 1612.
 Lionne, E., paper and paper-making, (P.), B., 859.
 Lions, F., indoles. I. 5:6-Dimethoxy-2-methylindole, A., 1593.
 trimethoxyquinoline derivatives, A., 1595.
 Lipin, N. V., distortion of curves in connexion with m.p. diagrams; m.p. diagrams with curvilinear co-ordinates, A., 1521.
 Lipmann, F., and Lohmann, K., conversion of Harden and Young's hexosediphosphoric ester [into another ester of the same type]; production of carbohydrate phosphoric esters in extract of frog muscle, A., 1210.
 Lipmann, F. See also Meyerhof, O.

- Lipp, P., isomerism of borneol and isoborneol, A., 922.
 Lipp, P. [with Witgert, H.], pinane; determination of nopinene, A., 610.
 Lippe, Olga (*Prinzessin zur*). See Müller, W.
 Lippmann, E. O. von, Dschâbir [Geber], A., 1266.
 Lippmann, H. See Parientjev, J. A., and Rona, P.
 Lipschitz, W., passage of halogens through animal membranes, A., 244.
 differentiation of thyroxine-iodine from inorganic iodine by membranes of the living organism, A., 1624.
 Lipschütz, A., relation between quantity and action of female sexual hormone, A., 118, 505.
 terminology of female sex-hormones, A., 962.
 Lipschütz, A., and Veshnjakov, S., œstrin in the urine of the pregnant cow, A., 962.
 Lipscomb, A. G. See Kenyon, J.
 Lipscomb, R. W. See Megee, C. R.
 Liptak Fire-Brick Arch Co. See Spencer, H. W.
 Liquid Air, Ltd. See Simonis, O.
 Liquid Veneer Corporation, and Gingras, E. F., fluid composition for treating brake and clutch linings, (P.), B., 696.
 Liquier-Milward, (Mrs.) J., polarimetry as a means of investigating solutions of strong electrolytes, A., 1094.
 Lira, J. Di L., glutathione content of human placenta and denervated gastrocnemius of the toad, A., 1202.
 Lissitzin, M. See Bergmann, M.
 List, G. M., sulphide-sulphur content as a basis for diluting lime-sulphur for spraying, B., 297.
 Litareczek, G., Aubert, H., and Cosmulesco, I., affinity of hæmoglobin for oxygen in anæmia, A., 806.
 Litjago, A., purification of sugar-cane juice, B., 525.
 Litterscheidt, W. See Bunte, K.
 Little, B. H. See Howells, H. P.
 Little, B. P. See Pike, R. D.
 Littleton, J. T., jun., and Preston, F. W., theory of the strength of thermally toughened glass, B., 557.
 Littman, J. B., and Brode, W. R., condensation of secondary amines with aldehydes and naphthols, A., 775.
 Littmann, E. R., and Marvel, C. S., cyclic quaternary ammonium salts from halogenated aliphatic tertiary amines, A., 349.
 Litvak, I. I. See Gottmacher, A.
 Litvinov, L. S., development of the phenomenon of soil drought, B., 161.
 Litzenberger, E., optical constants of carbon in the infra-red region, A., 136.
 Liu, S. H. See Sendroy, J. I.
 Liverance & Van Antwerp. See Hammers, W. J.
 Liverpool Refrigeration Co., Ltd., and Allan, J., refrigerating apparatus, (P.), B., 445.
 Liverpool Rubber Co., Ltd., and Thorne, G., manufacture of organic materials such as rubber, (P.), B., 1122.
 Livingston, A. E. See Freeman, B.
 Livingston, J. C. See Durand & Huguenin Soc. Anon.
 Livingston, R., halogen-sensitized oxidation of carbon monoxide, A., 1383.
 Livingston, R., and Heisig, G. B., vapour pressure of allene as a function of temperature, A., 1104.
 Livingston, R. See also Lind, S. C.
 Livsey, H., Holden, G. E., and Worrall, Ltd., J. & J. M., treatment of fibres and fabrics, (P.), B., 763.
 Livshits, S. S. See Shenderovich, F. S.
 Ljamen, N. See Orlova, (Frl.) M.
 Ljubitsch, N. See Hess, K.
 Ljungberg, E. See Widmark, E. M. P.
 Lloyd, A. See Bakelite, Ltd.
 Lloyd, (Miss) B., and Cranston, J. A., gas production by bacteria. II. Denitrification and bacterial growth phases, A., 818.
 Lloyd, (Miss) B., and Johnston, A., formation of melanin by bacteria, A., 644.
 Lloyd, (Miss) B. See also Cranston, J. A.
 Lloyd, D. B. See Tool, A. Q.
 Lloyd, (Miss) D. J., absorption of water by gelatin. IV. Influence of temperature, A., 1518.
 Lloyd, (Miss) D. J. [with Marriott, R. H., and Robertson, (Miss) M. E.], "red heat" in salted hides, B., 251, 959*.
 Lloyd, F., Wheeler, R. V., and Pehrson, A. P., treating coal to remove smoke-producing constituents, (P.), B., 448.
 Lloyd, J. See Mandleberg & Co., Ltd., J.
 Lloyd, L. L., defects [in dyed fabrics] caused by skin particles, B., 100.
 Lloyd, R. L., and Dwight & Lloyd Metallurgical Co., manufacture of cellular aggregate, (P.), B., 666.
 Lloyd, S. J., Kennedy, A. M., and Federal Phosphorus Co., manufacture of carboic acid [phenol], (P.), B., 275.
 Lloyd, T. C., coking value of coal, B., 494.
 Lloyd, W. V., studies on hydrogen overpotential by the dropping mercury cathode, A., 297.
 overpotential of arsenic and the yields of arsine at an arsenic cathode in acid solutions, A., 298.
 Lobley, A. G. See Birmingham Electric Furnaces, Ltd.
 Lochhead, A. G., and Farrell, L., soil as a source of infection of honey by sugar-tolerant yeasts, B., 1044.
 effect of preservatives on fermentation by sugar-tolerant yeasts from honey, B., 1044.
 Lochhead, J. S. See Kernohan, R. B.
 Lochte, H. L., device for fastening m.p. tubes to thermometers, A., 729.
 Lochte-Holtgreven, W., effective temperatures in a discharge tube determined from intensity measurements of band spectra, A., 1331.
 Lochte-Holtgreven, W., and Dieke, G. H., ultra-violet bands of the neutral oxygen molecule, A., 124.
 Lochte-Holtgreven, W. See also Dieke, G. H.
 Lock, G., "oxidising" action of alkalis. III. Aromatic alcohols, A., 597.
 derivatives of phenyl ether. I. Nitro-, amino-, and hydroxy-derivatives, A., 767.
 "oxidising" action of alkalis. IV. Nitrobenzaldehydes, nitro-, and halogeno-benzyl alcohols, A., 775.
 Cannizzaro reaction, A., 916.
 Lock, L. See I. G. Farbenind. A.-G.
 Locke, A., and Main, E. R., respiratory catalysts of the disease-producing bacteria, A., 1621.
 Locke, Lancaster, and Johnson & Sons, Ltd., W. W. & R. See Butcher, W. T.
 Lockhoven, J., preparing an infusion of coffee from which the poisonous constituents have been removed, (P.), B., 684.
 Lockspeiser, B., sensitive silica manometers, A., 885.
 experimental investigation into equilibrium relations between a plastic crystalline solid and its solution, A., 1362.
 Locquin, R., and Heilmann, R., alteration of pyrazolines in contact with free oxygen, A., 94.
 nature of ketones formed in the regulated oxidation of pyrazolines, A., 94.
 basic compounds formed in the regulated oxidation of pyrazolines, A., 94.
 mechanism of the regulated oxidation of pyrazolines, A., 95.
 identification of stereoisomeric ethylenic ketones, A., 325.
 dehydration of α -hydroxyketones, A., 325.
 semicarbazones of isobutylidene- and isoamylidene-acetones, A., 325.
 Lode, A., is prohibition of addition of foam-forming saponin-containing substances to sugar wares (e.g., "halwa") justified? B., 392.
 Lodge, F. See Imperial Chem. Industries, Ltd.
 Löb, A. See Pacsu, E.
 Loeb, L. B., emission of β -rays in radioactive change, A., 8.
 ionic mobilities in chlorine and in chlorine-air mixtures, A., 392.
 mechanism of spark discharge, A., 1077.
 mobility of Na⁺ ions in hydrogen, A., 1231.
 Loeb, L. B., and Marshall, L. C., theory of recombination of gaseous ions, A., 614.
 Loeb, L. F., allergens. III. Pollen of *Alopecurus* (fox-tail grass), A., 365.
 chemical nature of allergic substances. IV., A., 954.
 Loeb, J. F. See also Chem. Fabr. auf Aktien (vorm. E. Schering).
 Löffbecke, G. von. See Carbonit A.-G.
 Löffbecke, K., properties of cobalt-chromium-tungsten alloys, B., 195.
 Loebel, R. O. See Richardson, H. B., and Shorr, E.
 Löblein, F. See Berl, E.
 Lódésol, A., soil reaction and agricultural crops, B., 475, 577.
 Loeffler, G. See Redlich, O.
 Löffler, H., determination of calorific values of producer gas, B., 227.
 determination of the explosion limits of gases and gas mixtures, B., 594.
 Löffler, J. See D'Ans, J.
 Löffler, S., measurement of the quantity of a gas or liquid passing through a tube, (P.), B., 308.

- Löffler, S., coal-dust burners, (P.), B., 938.
- Löhner, H., velocity loss through quantum addition of slow electrons in diluted gases, A., 1231.
- Löhner, L., bile and biliary duct. IV., A., 1058.
- Löhnis, F., action and value of hot-fermented stall manure, B., 834.
- Löhnis, M. P., can *Bacterium radicicola* assimilate nitrogen in the absence of the host plant? B., 258.
- Loehwing, W. F., hydrogen-ion concentration of the sap as a factor in plant metabolism, B., 475.
- Loeper, M., Lemaire, A., and Mougeot, A., glycogen and the activity of the snail's heart, A., 810.
- Loeper, M., Mougeot, A., Degos, R., and De Seze, S., glycogen of the heart and cardiac medicaments, A., 810.
- Löppmann, B. See Glaud, W.
- Loeser, D., and Konwiser, A. L., toxicity of strontium; comparison with other cations employed in therapeutics, A., 1473.
- Loeser, H., apparatus for dyeing tubular textile webs or fabrics, (P.), B., 860.
- Loeserman, M. M., rapid determination of relative viscosities of opaque liquids, B., 397.
- Loessin, A., manufacture of ceramic materials, building elements, etc., from mud, (P.), B., 420*.
- Loevenhart, A. S. See Crandall, L. A.
- Loevenich, J., Becker, Wilhelm, and Schröder, T., reactivity of halogenated hydrocarbons. IV. Transformations with halogenated condensed ring system hydrocarbons, A., 1279.
- Loevenich, J., Fremdling, H., and Föhr, M., α - and β -selenium derivatives of naphthalene, A., 232.
- Loevenich, J., and Gerber, H., α -bromo- α -nitrohydrocarbons. II. Behaviour of α -bromo- α -nitro- β -phenylethylene, A., 1172.
- Loevenich, J., Koch, J., and Pucknat, U., α -bromo- α -nitrohydrocarbons. I. α -Bromo- α -nitro- Δ^4 -butene and -pentene, A., 672.
- Loevenich, J., and Sipmann, K., action of selenium bromide on aromatic hydrocarbons, A., 332.
- Loevenich, J., Utsch, H., Moldrickx, P., and Schaefer, E., reactivity of halogenated hydrocarbons. III. Reactions with hydroaromatic halogenated hydrocarbons, A., 200.
- Loew, O., physiologically acid nature of potash fertilisers, B., 74.
- Löwa, A. See Wilborn, F.
- Loewe, B., [cathodes for] thermionic valves, (P.), B., 776.
- Loewe, B., cathodes for thermionic valves; thermionic cathodes, (P.), B., 995.
- Loewe, E. L. See Mislowitz, E.
- Loewe, H. See Bergmann, M.
- Loewe, Siegfried, Voss, H. E., Rothschild, F., and Borchardt, E., male sexual hormone (androkinin) in urine, A., 1070.
- Loewe, Siegmund, heated filament for thermionic valves, (P.), B., 153.
- Loewe, B., cathodes for electron-discharge devices, (P.), B., 825.
- Loewe, B., manufacture of a glowing cathode for electron-discharge device, (P.), B., 995.
- Loewe, B., thermoelectronic rectifier, (P.), B., 1035.
- Löwenstein, A., and Schuster, L., dibenzoyltetraphenylethane and its radical dissociation, A., 1184.
- Löwenstein, E. See Hevesy, G. von.
- Loewenstein, Ernst, preparations for immunising against diphtheria, (P.), B., 640.
- Löwenthal, H., Zeeman effect and hyperfine structure of the antimony arc spectrum, A., 125.
- Loewe-Radio Ges.m.b.H., and Römhild, E., electron-discharge devices, (P.), B., 955.
- Loewi, O., insulin and glycæmin. III., A., 379.
- Loewi, O. See also Engelhart, E.
- Logan, L. See Huff, W. J.
- Logan, M. A., apparatus for evaporation of liquids in a test-tube, A., 968.
- Logue, P. See Booth, C. F., and Durgin, C. B.
- Logvinova, Z. V., influence of peat on the utilisation of phosphoric acid from phosphates, B., 630.
- Lohfert, H., isomerisations of brominated naphthalenes by aluminium chloride, A., 1424.
- Lohfert, H. See also Schade, H.
- Lohmann, H., electrical heating body [resistor] and its manufacture, (P.), B., 65.
- Lohmann, K., formation and degradation of phosphoric esters in muscle in the presence of fluoride, oxalate, citrate, and arsenate, I., A., 1210.
- Lohmann, K. See also Lipmann, F.
- Lohmann, W. H. See Gen. Chem. Co.
- Loiseleur, P., and Morel, R., determination of lactic acid in blood, A., 943.
- Lomakin, B. A., spectroscopic determination of bismuth in copper, A., 445.
- Lombard, V., permeability of metals to gases; classification of the various gas-metal systems, B., 243.
- Lombardi, E., effect of liver diet on blood-sugar, A., 1480.
- Lomberg, E., matting a cellulose ester film for photographic purposes, (P.), B., 1047.
- Lommel, W. See I. G. Farbenind. A.-G.
- Lo Monaco, D., and Leone, A., effects of repeated subcutaneous injections of sucrose on diabetics; pathogenesis of hyperglycæmia and glycosuria, A., 106.
- London, F., mechanism of homopolar linking, A., 1097.
- London, F., theory and systematic treatment of molecular forces, A., 1239.
- London, F. See also Eisenschitz, R., and Kallmann, H.,
- London, W. J. A., and Peabody Engineering Corporation, apparatus for pulverising material, (P.), B., 268.
- Long, B., and Société Anonyme des Manufactures des Glaces & Produits Chimiques de St-Gobain, Chauny & Cirey, [glass-melting] electric furnace, (P.), B., 334.
- Long, B., production of [tinted violet] glass, (P.), B., 420*.
- Long, B., manufacture of ultra-violet-transmitting glass, (P.), B., 1111*.
- Long, J. D. See Simmons, C. W.
- Long, J. S., Kittelberger, W. W., Scott, L. K., and Egge, W. S., drying oils. XI. Unimolecular films of blown and heat-bodied oils and their constituent fatty acids and esters on water surfaces, B., 154.
- Long, J. S. See also Theis, E. R.
- Long, M. L., and Bischoff, F., insulin-like properties of "uvursin," "oxy-catalyst," and *Solanum sanitwongsei* berries, A., 646.
- Long, M. L. See also Bischoff, F.
- Longhi, C., treatment of organic substances in liquid state electrochemically, (P.), B., 247*.
- Longinescu, G. G., and Pirtea, T. I., direct determination of bromide in presence of chloride, A., 561.
- Longinov, V. V. See Roshdestvenski, M. S.
- Longo, B., and Paderi, C., biological significance of alkaloids in plants, A., 608.
- Longo, G. See De Paolini, I.-
- Longworth, L. G., application of moving boundaries to [the determination of transference numbers in] aqueous mixtures of hydrogen chloride and potassium chloride, A., 862.
- Lonsdale, T., changes in the dimensions of metallic wires produced by torsion. I. Soft-drawn copper, A., 23.
- Lonza Elektrizitätswerke & Chemische Fabrik Akt.-Ges., production of [solid] ammonium formate, (P.), B., 187.
- Lonza, production of calcium formate, (P.), B., 373.
- Lonza-Werke Elektrochemische Fabrik G.m.b.H., manufacture of artificial leather, etc. [from fibrous materials], (P.), B., 318.
- Lonza, drawing or stretching process in the manufacture of cuprammonium artificial threads, filaments, and yarns, (P.), B., 456.
- Loomis, A. L., and Wood, R. W., formation of emulsions, etc., (P.), B., 65.
- Loomis, N. E., Lewis, W. K., and Standard Oil Development Co., vacuum distillation and rectification of paraffin distillate, (P.), B., 704.
- Loomis, N. E., and Standard Oil Development Co., treating oils with finely-divided solid material, (P.), B., 854.
- Loomis, N. E., pressure distillation, (P.), B., 1009.
- Loomis, N. E. See also Standard Oil Development Co.
- Loon, C. van, and Naamloze Vennootschap A. Jurgens Margarine-fabriek, conversion of triglycerides into other esters, (P.), B., 248*.
- Loon, J. van, composition of wallflower-seed oil, A., 1323.
- Loon, J. van, determination of unsaturation of fats and fatty acids. I. and II., B., 567, 724.
- Loon, J. van, composition of tung oil, B., 724.
- Loon, J. van, apparent iodine value of tung oil, B., 777.
- Loon, J. van, apparent iodine value of tung oil as a criterion of its purity, B., 996.
- Loon, J. van, determination of unsaturation of fats and fatty acids. III. Wijs iodine value, B., 1036.
- Looney, J. M., determination of blood-carbamide-nitrogen by direct nesslerisation, A., 1305.
- Lopatina, G. B. See Korsakova, M. P.
- Lora, M., and Silván, L., rapid determination of copper in poor minerals for tariff purposes, B., 992.

- Lora y Tamayo, *M.*, volumetric determination of copper by potassium cyanide, A., 444.
ethyl esters of chaunmoogric acid, A., 772.
determination of cyanides by copper sulphate, A., 1392.
- Lorang, *H. J.*, and Kuna, *F. J.*, alloy [for electrical heating units], (P.), B., 915.
- Lorant, *I. S.*, colorimetric micro-method for the determination of sulphur in sulphides, sulphates, etc., A., 181.
- Lord, *G. S.*, apparatus for treating hanks of yarn with liquids, (P.), B., 987.
- Lord, *J.*, grading and separation of granular materials, (P.), B., 306.
- Lord, *R.*, and Southwestern Eng. Co., mineral flotation apparatus, (P.), B., 1158.
- Lorenz. See Zipperer.
- Lorenz, *H.* See Kühl, *Hans*.
- Lorenz, *K.* See Epstein, *E.*
- Lorenz, *L.*, chemical importance of surface tension and internal friction of liquids, A., 1097.
- Lorenz, *L.* See also Samuel, *R.*
- Lorenz, *R.*, regeneration of caustic sludge in sulphate- and soda-cellulose works, B., 317.
- Lorenz, *R.*, and Fraenkel, *W.*, separation and refining of metal mixtures, (P.), B., 106.
- Lorenz, *R.*, and Heinz, *H.*, manufacture of colloidal metallic salts, (P.), B., 143.
- Lorenz, *R.*, and Herz, *W.*, vapour-pressure curves and the calculation of van der Waals' *a* constants for metals and salts, A., 403.
- Lorenz, *R.*, and Schmitt, *H.*, equilibrium of thallium and lead with molten thallous chloride and lead chloride, A., 701.
- Lorenz Akt.-Ges., *C.*, electric induction furnaces, (P.), B., 1117.
- Lorenz Akt.-Ges., *C.* See also Esau, *A.*
- Lorenzo, *D.* See Parga, *I.*
- Lorey, *K.*, molecular compounds of ethyl diazoacetate with inorganic salts and oxides, A., 330.
- Loriette, *P.*, production of absolute alcohol, (P.), B., 345.
- Lortz, *E.*, drugs containing phloroglucotannides or similar tanning substances; red coloration caused in the lignified elements by concentrated acids, B., 639.
- Losev, *K. I.*, and Nikitin, *S. N.*, pyrogenic decomposition of gypsum, B., 903.
- Losey, *A.*, Gottlieb, *P.*, and Haupt, *L. L.*, fractional condensation of composite vapours, (P.), B., 694.
conversion of hydrocarbons into lighter hydrocarbons, (P.), B., 805.
fractionally condensing (A) composite vapours, (n) petroleum vapours and other vapour compounds, (P.), B., 894.
- Losina-Losinsky, *L.*, and Martinov, *P. F.*, method of studying the activity and rate of diffusion of protozoa and bacteria in the soil, B., 634.
- Lothrop, *R. E.* See Tartar, *H. V.*
- Lott, *W. A.*, and Christiansen, *W. G.*, preparation of cyclopropane, A., 758.
catalytic dehydrogenation of isopropyl alcohol, A., 1159.
- Lotte, *P.* See Moureu, *C.*
- Lottermoser, *A.*, and Ott, *A.*, constitution of starch iodide, A., 1109.
- Lottermoser, *A.*, and Radestock, *H.*, wood-pulp viscose. II., B., 551.
- Lottermoser, *A.*, and Riedel, *W.*, charge of colloid particles and their influencing [factors], A., 696.
preparation and some properties of tungsten and chromium hydrosols, A., 1113.
- Lottermoser, *A.*, Riedel, *W.*, and Bretschneider, *O.*, sodium tungstates stable in aqueous solution, A., 722.
- Lottermoser, *A.*, and Schiel, *C.*, viscose. IV. Reason for the dependence of the cross-section of viscose filaments on the composition of the coagulating bath, B., 551.
- Lottermoser, *A.*, and Schwarz, *F.*, viscose. III. Influence of oxygen on the ripening of viscose, B., 551.
- Lotze, *F.*, at. wt. of actinium-lead, A., 836.
- Lotzkat, *J. F.*, solder for aluminium-magnesium alloys with a high magnesium content, (P.), B., 333.
- Loucks, *M. M.*, and Scott, *F. H.*, calcium in the coagulation of blood, A., 802.
- Louwes, *S. L.*, Hudig, *J.*, Meijer, *C.*, Cleveringa, *O. J.*, and Deehering, *F.*, sugar beet culture on sandy soils, B., 161.
- Love, *K. S.* See Emmett, *P. H.*
- Love, *W. H.*, photometric determination of relative intensities in the β group in the *L*-spectrum of tungsten, A., 267.
- Love, *W. W.* See Murray, *A. N.*
- Lovecy, *A.*, Robinson, *R.*, and Sugawara, *S.*, anthoxanthins. XI. Synthesis of diosmetin and luteolin 3'-methyl ether, A., 785.
- Loveland, *R. P.* See Trivelli, *A. P. H.*
- Loveluck, *R. J.*, Beckett, *E. G.*, Thomas, *J.*, and Scottish Dyes, Ltd., production of anthraquinone derivatives [*o*-halogenated aminoanthraquinones], (P.), B., 941.
- Loveluck, *R. J.*, Thomas, *J.*, and Scottish Dyes, Ltd., production of indanthrone bodies [halogenation of diarylaminoindanthrones for green vat dyes], (P.), B., 277.
- Loveridge, *G. T.* See Knowland, *R. G.*
- Lovering, *E. W.* See Richter, *G. A.*
- Lovern, *J. A.*, composition of the fatty acids present as glycerides in the liver oil of the thresher shark (*Alopietis vulpes*), A., 1308.
- Lovern, *J. A.* See also Guha, *K. D.*, and Hilditch, *T. P.*
- Low, *F. S.*, and Berresford, *A. W.*, tanning and tanning composition, (P.), B., 1082*.
- Low, *F. S.*, and Mathieson Alkali Works, Inc., manufacture of chrome-green pigment, (P.), B., 338.
- Low, *F. S.*, and Westvaco Chlorine Products, Inc., [electrolytic] manufacture of chlorine, (P.), B., 1065.
- Low, *M.* See Klemenc, *A.*
- Lowdermilk, *F. R.*, and Day, *A. R.*, vapour-phase oxidation of organic compounds, using rare-earth oxides as catalysts. I. Methyl and ethyl alcohols, A., 1381.
- Lowe, *B.* See Bingham, *E. C.*
- Lowe, *D. V.* See Cobb, *R. M.*
- Lowe, *E. W.* See Rising, *M. M.*
- Lowe, *R. E.* See Fink, *C. G.*
- Lowe, *S. P.*, Koenig, *H. T.*, and Channing, *R. H.*, jun., flotation process [for copper sulphide ores], (P.), B., 332.
- Lowe, *W.*, and Fleuret Fabrics, Ltd., [machine for] ornamentation of fabrics, paper, etc., (P.), B., 610.
- Lowell Specialty Co., sprayer [for insecticidal solutions, etc.], (P.), B., 387.
- Lowenberg, *C.*, and Mattice, *M. R.*, determination of inorganic phosphate in serum and cerebrospinal fluid, A., 1008.
- Lowenfeld, *M. P.* See Widdows, *S. T.*
- Lowenstein, *J. S.* See Muskat, *I. E.*
- Lowndes, *E. C.* See Hollands, *H. W.*
- Lowry, *W.*, Bradford sulphur dioxide process [for lead-zinc slimes], B., 866.
- Lowry, *C. D.*, jun. See Egloff, *G.*
- Lowry, *E. F.*, rôle of the core metal in oxide-coated filaments, A., 973.
- Lowry, *H. H.*, nature of "active carbon," A., 286.
- Lowry, *H. H.* See also Murphy, *E. J.*
- Lowry, *T. K.*, production of solidified globules ["pearl glue"] from liquid gelatinous substances, (P.), B., 679.
- Lowry, *T. M.*, rotatory dispersion of organic compounds. XVIII. Potassium borotartrate. XIX. Validity of Drude's equation, A., 135.
extended theory of acids and bases, A., 292.
optical rotatory power, A., 980.
stereochemistry of tellurium, A., 1028.
sulphur chlorides, A., 1389.
- Lowry, *T. M.*, and Allsopp, *C. B.*, photographic method of measuring refractive indices, A., 186.
- Lowry, *T. M.*, and Gilbert, *F. L.*, valency. XIV. Optically active telluronium salt: phenyl-*p*-tolylmethyltelluronium iodide, A., 232.
- Lowry, *T. M.*, and Jessop, *G.*, properties of the chlorides of sulphur. III. Dielectric constants, A., 666.
properties of the chlorides of sulphur. IV. Density and surface tension; parachors of mixtures, A., 842.
- Lowry, *T. M.*, and Owen, *G.*, calculation of dispersion equations, A., 1095.
- Lowry, *T. M.*, and Simons, *J. H.*, halogen derivatives of trimethylstibine, A., 1027.
- Lowry, *T. M.*, and Snow, *C. P.*, optical rotatory power of quartz on either side of an infra-red absorption band, A., 844.
- Lowry, *T. M.*, and Vernon, *M. A.*, valency. VII. Etch-figures of sylvine, A., 842.
- Lowry, *W. N.*, location of the *E.M.F.* in the photo-voltaic cell, A., 973.
- Lowy, *A.* See Goldblatt, *L. A.*, and Landolt, *G. L.*
- Loy, *G. S.*, conducting thermal reactions between pulverised substances and a gas, (P.), B., 268.
preparation of pulverised solid fuels, (P.), B., 403, 933*.

- Loyarte, *R. G.*, a new form of quantised energy in the mercury atom; possibility of a rotation, A., 5.
quantified rotation of the thallium atom, A., 126.
- Lozovy. See Petrenko-Kritschenko, *V.*
- Lubach, *W.*, electric hygrometer, (P.), B., 694.
- Lubach, *W.*, and Gieser, *E.*, hygrometers, (P.), B., 889.
- Lubarsky, *G. O.*, and Dikova, *M. G.*, volumetric determination of active oxygen in mixtures of hydrogen peroxide and per-sulphuric acid, B., 1108.
- Luber, *A.* See Müller, *Ernst.*
- Lublin, *A.*, lipogenic and antilipogenic action of hormones as cause of obesity and leanness, A., 1220.
- Lubman, *N. M.* See Talmud, *D.*
- Lubowsky, *S. J.*, and Metal & Thermit Corporation, bonding of refractories, (P.), B., 990*.
- Lubszynski, *G.* See Schröter, *F.*
- Lucas, *C. C.* See Hutchinson, *A. H.*
- Lucas, *G. H. W.* See Henderson, *V. E.*
- Lucas, *H.*, quantitative spectrum analysis of alkali metals, A., 1264.
- Lucas, *H. J.*, test for distinguishing primary, secondary, and tertiary saturated alcohols, A., 449.
- Lucas, *H. J.*, Dillon, *R. T.*, and Young, *W. G.*, determination of the composition of butene mixtures by distillation methods, A., 888.
- Lucas, *H. J.* See also Dillon, *R. T.*, Kirschman, *H. D.*, and Young, *W. G.*
- Lucas, *H. P.* See McBain, *J. W.*
- Lucas, *O. D.*, and Vickers, Ltd., treatment of fibrous vegetable materials [flax], (P.), B., 139*.
- Lucas, *P. G.* See Cowper-Coles, *S. O.*
- Lucas, *R.*, mutual influence of the chromophoric groups of a molecule on their [ultra-violet] absorption bands, A., 1087.
variations in the rotatory power of a compound, A., 1095.
- Lucas, *R.*, and Biquard, (*Millé*) *D.*, influence of temperature and solvents on the rotatory powers of active substances, A., 136.
- Lucas, *R.*, and Grassner, *F.* [with Neukirch, *E.*], application of microchemical methods to the determination of traces of substances, A., 1546.
- Luoater, *E.* See Zaharia, *A.*
- Luchsinger, *J.*, and Voss, *H. E.*, hormone balance after oral administration of ovarian hormone, A., 962.
- Luchsinger, *M.* See Manetti, *G.*
- Luck, *J. M.* See Cady, *O. H.*, and Sahyun, *M.*
- Lucké, *B.* See McCutcheon, *M.*
- Luckow, *C.*, the extract question in the liqueur industry, B., 787.
improvement of the quality of alcoholic liquids by treatment with charcoal, B., 787.
- Ludeman, *C. G.* See Hamilton, *C. S.*
- Ludewigs, *W.* See Trautz, *M.*
- Ludloff, *H.*, entropy of solids at very low temperatures, A., 677.
- Ludlum Steel Co. See Armstrong, *P. A. E.*, and De Vries, *R. P.*
- Ludwig, *O.* See Trautz, *M.*
- Ludwig, *W.*, Schaumann, *O.*, and Winthrop Chemical Co., Inc., preparation of solutions of the active principle from animal organs, (P.), B., 533*.
- Lübbe, *E.* See Pfeiffer, *P.*
- Lübke, *E.*, variation of intensities in the mercury spectrum, A., 1489.
- Lübke, *E.* See also Kroczeck, *J.*
- Lüdke, *W.*, activation and ionisation produced by rotating fields of high frequency, A., 1080.
promoting chemical reactions and physical processes by the use of a high-frequency rotary electric field, (P.), B., 1160.
- Lüdtke, *M.*, structure of the vegetable cell-membrane, B., 455.
- Lüers, *H.*, Scholler's process for the conversion of cellulose into sugar, B., 835.
- Lüers, *H.* [with Schrempp, *W.*], treatment of brewing waters, B., 30.
- Lüers, *H.*, Fink, *H.*, and Riedel, *W.*, enzymic change in ripening barley, A., 1322.
- Lüers, *H.*, Kühles, *R.*, and Fink, *H.*, metabolism of the yeast- and mycelium-forms of *Mucor guilliermondii*, A., 502.
- Lueg, *P.*, sensitising photographic plates, and photographs of some near infra-red spectra, A., 396.
- Lühder, *E.*, distillery residue [with higher feed value], B., 117.
artificial distillery slop, B., 344.
- Lühder, *E.*, Lampe, *B.*, and Kilp, *W.*, desiccation of potatoes and manufacture of alcohol therefrom, B., 880.
- Lühmann, *K.*, drying of ceramic articles in drying chambers and apparatus therefor, (P.), B., 510.
- Lühr, *F.*, determination of traces of silver in photographic layers, B., 587.
- Lühr, *F.* See also Weigert, *F.*
- Lührs, *O.*, and Zellstoff-fabrik Waldhof, apparatus for obtaining yeast, (P.), B., 738*.
- Lührs, *O.* See also Zellstoff-fabr. Waldhof.
- Lüke, *J.* See Fricke, *R.*
- Luense, *F. H.*, and Rotospray Manufacturing Co., rotary spraying separator, (P.), B., 799*.
- Lüpfert, *H.*, comparative tests on the heat treatment of case-hardened steel, B., 194.
- Lüppo-Cramer, photochemistry of mercuric iodide, B., 37.
silver iodide bleach-out layers, B., 38.
destruction and intensification of the image by development in bright light, B., 303.
desensitising and the latent image, B., 441.
- Lüscher, *E.* See Elektrizitätswerk Lonza (Gampel & Basel).
- Lüth, *F.*, moisture in technical gases. I. Principles of calculation, B., 305.
- Lüthi, *M.* See Kohlschütter, *V.*
- Lüthje, *H.*, utilisation of blood, B., 438.
- Lüthy, *M.* See Staudinger, *H.*
- Lütschen, *E.*, cooler, (P.), B., 40.
- Luettmerding, *A.*, effect of acidity on the formation of vitamin-C, A., 119.
- Lütringhaus, *A.* See Gen. Aniline Works, Inc., Grasselli Dyestuff Corp., and Windaus, *S.*
- Lüty, *W.* See Schertel, *L.*
- Luft, *F.* See Eggert, *J.*
- Luftschiffbau Zeppelin Ges.m.b.H. See Trenckmann, *E.*
- Lugg, *J. W. H.*, variation with temperature of thermal separation in gaseous mixtures, A., 146.
- Lugovkin, *B. P.* See Postovski, *I. T.*
- Lugrin, *J. P.* See Briner, *E.*
- Luhn, *H. G.*, coal-tar oil for heating industrial furnaces, B., 698.
- Luhr, *O.*, recombination of ions in air and oxygen in relation to the nature of the gaseous ions, A., 974, 1231.
- Lukács, *J.*, tables for volumetric analysis, A., 1266.
- Lukas, *J.*, and Jilek, *A.*, determination of aluminium by means of hydrazine carbonate in the presence of manganese, A., 564.
gravimetric determination of aluminium in presence of iron by means of hydrazine carbonate, A., 727.
separation of tungstates from arsenates, using benzidine hydrochloride, A., 1265.
- Lukas, *J.* See also Jilek, *A.*
- Luke, *C. E.* See Jersey-Cereal Co.
- Lukens, *H. S.*, and Heuer, *R. P.*, freeing copper from copper oxide, (P.), B., 19.
continuous copper-melting furnace, (P.), B., 150.
- Lukes, *R.*, preparation of fatty acids, A., 891.
derivatives of homolævulic acid, A., 1163*.
action of Grignard reagents on *N*-methyl pyrrolidone; synthesis of substituted pyrrolines, A., 1296.
- Lukes, *R.*, and Prelog, *V.*, constitution of arylamides of lævulic acid; transformation of 2-hydroxy-1-phenyl-2-methyl-5-pyrrolidone into lævulanilide, A., 322.
arylamides of lævulic acid, A., 1171*.
synthesis of hydropyrryl derivatives using *p*-phenylenedimagnesyldibromide, A., 1189.
- Lukova, *N.* See Balarev, *D.*
- Lum, *E. A.*, delicate reagent for cobalt, A., 1265.
- Lumière, *A.*, structure of colloids, A., 1249.
- Lumière, *A.*, Lumière, *L.*, and Seyewetz, *A.*, some properties of sodium selenosulphate and its use for the combined fixing and toning of chlorobromide papers, B., 349.
- Lumière, *L.* See Lumière, *A.*
- Lunan, *J.*, manufacture of [felt-base] floor coverings [from waste], (P.), B., 715.
- Lund, *A.*, drying of organic solutions in volatile solvents, B., 451.
- Lund, *A. P.* See Smith, *L. I.*
- Lund, *H.*, constitution of phenolphthalein. II. Fading of phenolphthalein in alkaline solution, A., 1290.
- Lundberg, *J. J. V.* See Andreasen, *A. H. M.*
- Lunde, *G.*, and Closs, *K.*, mode of combination of iodine in *Laminaria digitata*, A., 823.
- Lunde, *G.*, and Rosbaud, *P.*, structure of the mixed crystal series CuI-AgI, A., 149.

- Lunde, G., and Wülfert, K., precipitation of proteins with ferric hydroxide, A., 799.
 substances in the thyroid gland containing iodine, A., 1203.
 Lundeen, E. F., and Willard Storage Battery Co., electrode for electrolytic cells, (P.), B., 775.
 Lundegårdh, H., quantitative spectral analysis. I. Determination of potassium, magnesium, and copper in flame spectrum, A., 311.
 quantitative spectrographic analysis as a general microchemical method, A., 560.
 Lundell, G. E. F., and Hoffman, J. I., effect of light on silver chloride in chemical analysis, A., 433.
 Lundgren, E. E. See Murdock, W. J.
 Lundin, E. A., and Tillberg, E. W., production of building material, (P.), B., 285.
 Lundin, H., Öhlin, O., and Ellburg, J., gasometric method for the determination of carbon dioxide in beer, B., 527.
 Lundmark, E. See Virtanen, A. I.
 Lundquist, O., influence of chemical linking on the K-X-ray emission spectrum of sulphur, A., 513.
 X-ray spectrum of sulphur, A., 972.
 Lundsgaard, E., hyperglycemia resulting from administration of amino-acids, A., 367.
 influence of proteins and their normal decomposition products on sugar content of blood, A., 367.
 muscle contraction without production of lactic acid, A., 368.
 action of iodoacetic acid on metabolic hydrolysis and oxidations, A., 954.
 action of iodoacetic acid on enzymic degradation of carbohydrates, A., 958.
 Lundsgaard, E. See also Meyerhof, O.
 Lundstrom, F. O. See Whittaker, O. W.
 Lungulescu, E. See Voicu, J.
 Lunnell, R. G., laws of motion of particles in a fluid, B., 744.
 Lunt, R. W., and Rau, M. A. G., variation of the dielectric constants of some organic liquids with frequency in the range $1-10^3$ kilocycles, A., 275.
 Lupke, P., jun. See Oakley, A. T.
 Lusby, O. W., removal of organic sulphur compounds from gases, (P.), B., 1055.
 Lusby, O. W. See also Huff, W. J.
 Lusifer Products Co., purification of steel, (P.), B., 952.
 Lusifer Products Co. See also Graf, E. H.
 Lusk, G. See Chambers, W. H.
 Luster, E. W. See Standard Oil Development Co.
 Lustig, B., concentration of pepsin and chemistry of its action, A., 112.
 globulins and albumins of serum, A., 1607.
 Lustig, B., and Botstiber, G., iodine- and thiocyanate-combining power and lipid content of the serum-protein fractions in syphilis and Basedow's disease, A., 949.
 Lustig, B., and Fürst, K., determination of nitrogenous constituents of blood and serous fluids by fractional precipitation with mercuric chloride, A., 122.
 Lustig, B. See also Perutz, A.
 Lustig, E., and Paulus, L., discharges on indigo, thioindigo, and sulphur colours [in printing], B., 416.
 Lustig, O. See Pollak, J.
 Lustrafl, Ltd., and Dougill, G., device for use in spinning of artificial silk, (P.), B., 760.
 Luther, F. See Brass, K.
 Luther, M. See I. G. Farbenind. A.-G., and Stollé, R.
 Luther, R., and Friese, H., decomposition of cobalt trinitrotri-amine in acid solution in the light and in the dark, A., 716.
 Lutman, B. F., and Walbridge, N. L., rôle of magnesium in the ageing of plants, A., 965.
 Luts, K., disintegration of kukkersite in organic liquids, B., 595.
 Lutz, H. E. W., picrocrocin, the bitter principle of saffron, A., 1590.
 Lutz, H. E. W., and Schmid, G., buck-wheat poisoning, A., 1617.
 Lutz, L., soluble enzymes secreted by *Hymenomyces*; anti-oxxygenic function of hydrocarbons and terpenes, A., 376.
 soluble enzymes secreted by *Hymenomyces*; hydrolysis of hemicelluloses, A., 818.
 soluble enzymes secreted by *Hymenomyces*; degradation of lignin, A., 1068.
 Lutz, R. B., unsaturated 1:4-diketones. V. Configurations of unsaturated dibromo-1:4-diketones and -ketonic acids; synthesis and structure of *cis*- and *trans*- α -benzoylacrylic acids and derivatives. VI. Synthesis and configurations of unsaturated 1:4-diketones and ketonic acids, and the stereochemical mechanism of the addition of bromine, A., 1288.
 Lutz, O., and Jirgensons, B., method of assigning optically active α -amino-acids to the *d*- or *l*-series. I., A., 460.
 Lux, H., bromine chloride, A., 878.
 Luy, P. See Trautmann, A.
 Lyeon, W. H., and Adams, R., ω -hydroxy-aliphatic acids. II. Conversion of γ -hydroxydecoic acid into chain poly-inter-molecular esters and into a dimeric cyclic ester, A., 65.
 Lyden, R., action of acetyl bromide on ethyl ethoxyacetate, A., 1557.
 oxygen affinity of hydrocarbon radicals. IV., A., 1576.
 Lyhra, N., printing with basic dyes without after-treating with tartar emetic, B., 415.
 Lykken, H. G., material classifying devices, (P.), B., 746.
 device for reducing [the size of] materials, (P.), B., 970.
 heat-treatment kiln, (P.), B., 1050.
 device for (A) reducing and feeding reduced materials, (B) reducing materials, (P.), B., 1050.
 Lymn, A. H., and Bowater, N. J., gas-manufacturing installations, (P.), B., 892.
 Lynch, D. F. J., effect of fine division on the solubility of cellulose, B., 1021.
 Lynch, D. F. J., and Goss, M. J., peanut-hull cellulose, B., 984.
 Lynn, E. V. See Lehman, A. J.
 Lyon, A. V., sulphuring of apricots, B., 1168.
 Lyon, R., Fron, G., and Fournier, influence of artificial ageing on the mechanical properties of woods, B., 60.
 Lyon, T. L., legumes as a source of nitrogen in crop rotations, B., 1083.
 Lyons, C. G., angles of floating lenses, A., 686.
 Lyons, C. G., and Rideal, E. K., unimolecular films, A., 539.
 stability of unimolecular films. IV. Amines, A., 1110.
 phase diagram for unimolecular films, A., 1247.
 Lyons & Co., Ltd., J., Lampitt, L. H., and Bilham, P. L., [tapping or abrading] means for testing the durability and hardness of tiles and other flooring material, etc., (P.), B., 328.
 Lyons Piece Dye-Works, production of differential [dyeing] effects on fabrics made of or containing organic esters of cellulose, (P.), B., 1024.
 Lytle, A. R., and Union Carbide & Carbon Research Laboratories, Inc., non-ferrous welding rod, (P.), B., 515*.
 [copper] welding alloy [for ferrous metals], (P.), B., 1116.
 Lytle, A. R. See also Miller, W. B.
 Lytleton, W. R. See Triplex Safety Glass Co., Ltd.
 Lyubarski, G. D., catalytic chlorination of acetic acid, B., 360.
 Lyutringshauzen, G. F. See Krestovnikov, A. N.
- M.
- M.-O. Valve Co., Ltd., and Peters, W. H., [envelope for] electric-discharge tubes, (P.), B., 673.
 M.-O. Valve Co., Ltd., and Rankin, D. A., cathodes for electric-discharge tubes, (P.), B., 954.
 Maan, C. J. See Verkade, P. E.
 Maas, A. R., removing lead arsenate from fruit, (P.), B., 928.
 Maass, E., and Kempt, R., manufacture of lithopone or zinc sulphide resistant to light, (P.), B., 726.
 Maass, H. See Hess, K.
 Maass, O. See Barnes, W. H., Butler, K. H., Campbell, W. B., Chipman, A. R., Coffin, C. C., Cooper, D. Le B., Cuthbertson, A. C., Fidgeon, L. M., and Steacie, E. W. R.
 Mabee, H. C., manufacture and use of calcium molybdate, B., 1149.
 McAdam, D. J., jun., influence of cyclic stress on corrosion, B., 773.
 McAlister, E. D., spectrum of the neutral mercury atom in the wave-length range from 1 to 2μ , A., 3.
 McAlister, E. D. See also Brackett, F. S.
 McAllister, A. W., grinding mills, (P.), B., 1135.
 McAllister, S. H. See Bergstrom, F. W.
 McAllister, W. H. See Davidson, A. W.

- Macallum, A. B., and Bradley, R. C., haemoglobin, A., 962.
- Macao-Walzenmühlen-Ges.m.b.H., grinding mills, (P.), B., 970.
- Macao-Walzenmühlen-Ges.m.b.H. See also Bragard, T.
- McArthur, A. R., and American Sheet & Tin Plate Co., proheater, (P.), B., 1.
- MacArthur, E. H., fat metabolism. I. Rate of digestion of fats as determined by chylomicrons of the blood, A., 1061.
- behaviour of Sudan III when fed with carbohydrate, A., 1614.
- McAulay, A. L., and White, G. L., effect of hydrogen-ion concentration on the electrode potential of iron, A., 423.
- McAulay, J. See Imperial Chemical Industries, Ltd.
- Macaulay, J. M., and Carson, D., mica insulation, B., 380.
- McBain, J. W., and Britton, G. T., nature of sorption by charcoal of gases and vapours under great pressure, A., 990.
- McBain, J. W., and Du Bois, R., experimental tests of the Gibbs adsorption theorem; structures of the surface of ordinary solutions, A., 152.
- McBain, J. W., Jackson, D. N., Bakr, A. M., and Smith, H. G., sorption of organic vapours by activated sugar charcoal, A., 1108.
- McBain, J. W., and Kawakami, Y., influence of physical state of a soap solution on the rate of saponification of triglycerides and the differing degrees of emulsification for neighbouring triglycerides, A., 693.
- McBain, J. W., and Kistler, S. S., hydration of sucrose in aqueous solution, A., 31.
- membranes for high-pressure ultra-filtration, A., 728.
- McBain, J. W., Lazarus, L. H., and Pitter, A. V., application of the phase rule to soap boiling; system sodium palmitate-water-sodium chloride, A., 702.
- McBain, J. W., Lucas, H. P., and Chapman, P. F., sorption of organic vapours by highly evacuated, activated sugar charcoal, A., 1108.
- McBain, J. W., and Peaker, C. R., comparative measurements of the surface conductivity of solutions of various electrolytes at a boundary of pyrex, A., 704.
- McBain, J. W., Peaker, C. R., and King, (Miss) A. M., absolute measurements of the surface conductivity near the boundary of optically polished glass and solutions of potassium chloride, A., 37.
- McBain, J. W., and Rysselberge, P. J. van, incompatibility between any theory of complete dissociation and migration data, A., 997.
- McBain, J. W., and Tanner, H. G., robust microbalance of high sensitivity, suitable for weighing sorbed fibres, A., 55.
- McBain, J. W., and Williams, R. C., determination of the number of free electric charges on air bubbles and oil droplets dispersed in water containing a small amount of cetylsulphonic acid, A., 1366.
- McBain, J. W. See also McBain, M. E. L.
- McBain, M. E. L., and McBain, J. W., identity of the colloidal particles in soap sols and jellies, A., 292.
- McBerty, F. H., and De Laval Separator Co., restoring the quality of used gasoline, (P.), B., 498.
- McBryde, W., treatment of carbonised clays and of refractory units prepared from such clays, (P.), B., 948.
- McCabe, W. L. See Badger, W. L.
- McCallan, S. E. A. See Wilcoxon, F.
- MacCallum, J., and O'Hara, M., [photographic] manufacture of wallpapers, (P.), B., 1023.
- McCallum, S. P., plasmodial discharges in gases, A., 1077.
- McCallum, S. P., and Perry, W. T., spiral forms in gas discharges, A., 126.
- McCance, R. A., colorimetric determination of rhamnose, A., 325.
- McCance, R. A., and Madders, K., comparative rates of absorption of sugars from the human intestine, A., 950.
- McCance, R. A. See also Madders, K.
- McCandlish, A. C. M. See Glen, J.
- McCarthy, J. C. See Armstrong Cork Co.
- McCaw, F., fibre-preparing treatment of bast or vegetable fibre plants, (P.), B., 183.
- McCay, C. M. See Titcomb, J. W.
- Macciotta, E., nitroamines. I. Nitrophenylnitroamines, A., 1032.
- McClellan, J. L., and National Vulcanized Fibre Co., purification of zinc chloride, (P.), B., 1028.
- McClellan, W. S., and Du Bois, E. F., clinical calorimetry. XLV. Kidney function and ketosis during prolonged meat diets, A., 1212.
- McClellan, W. S., Rupp, V. R., and Toscani, V., clinical calorimetry. XLVI. Metabolism of nitrogen, calcium, and phosphorus during prolonged meat diets, A., 1212.
- McClelland, C. K., sweet sorghums for syrup and forage, B., 635.
- McClelland, E. W., and Warren, L. A., formation and stability of the 2-o-thiophenyl-4:5-dihydroglyoxalines, A., 95.
- dismutation of disulphides, A., 928.
- McClelland, H. L. See Dyer, F. C.
- McClelland, W. R. See Traill, R. J.
- McClendon, J. F., Remington, R. E., Kolnitz, H. von, and Rufe, R., determination of traces of iodine. III. Iodine in milk, butter, oil, and urine, B., 392.
- McClendon, J. F. See also Remington, R. E.
- McCloskey, G. E., and Barrett Co., electrical precipitator [for cleaning gases], (P.), B., 870.
- McCloskey, W. T., Thompson, M. R., and Barbella, N. G., physiological potency of commercial ergot preparations, B., 1003.
- McClure, F. J., and Mitchell, H. H., influence of small quantities of potassium iodide on the assimilation of nitrogen, phosphorus, and calcium in the growing pig, A., 1208.
- McCollum, E. V., Rask, O. S., and Becker, J. E., do the spectrograms of Kahlenberg and Closs demonstrate the presence of aluminium in biological material? A., 492.
- McCombie, H., Macmillan, W. G., and Scarborough, H. A., bromination of 2-nitro- and 2-acetamido-diphenyl ether, A., 1034.
- McConkey, W. N., water softener, (P.), B., 968.
- McConnell, J. R. See Black, J. C.
- McConnell, S. See Wilson, J. E.
- McCool, M. M., and Weldon, M. D., effect of sodium nitrate on the composition of the expressed sap of the small grains, B., 1042.
- McCord, C. P., test for industrial lead poisoning; presence of basophilic red cells in lead poisoning and lead absorption, B., 884.
- MacCorquodale, D. W., Steenbock, H., and Adkins, H., preparation and antirachitic activation of derivatives of ergosterol and cholesterol, A., 1036.
- McCosh, S. S. See Macy, J. G.
- McCowan, D. A., photographic sensitised [metal] discs, (P.), B., 303.
- McCrary, M. H., determination of urea in water, B., 884.
- McCrae, J. V., and Dowdell, R. L., effect of dooxidation and mould conditions on the tensile properties of carbon-steel castings, B., 1156.
- McCrea, A., marrubiin content of *Marrubium vulgare*, A., 826.
- prolonged effect on *Digitalis purpurea* of exposure under ultra-violet-transmitting glass, A., 967.
- McCrea, F. D., effect of mercury and sodium oxalate on blood-calcium, A., 1473.
- McCrea, W. H., equation of state of an ionised gas, A., 283.
- McCreath, J., transparencies [with stereoscopic effect], (P.), B., 303.
- McCubbin, R. J., and Adkins, H., oxidation of "diisobutene" by ozone, A., 1017.
- McCullagh, D. R., Walton, C. H. A., and White, F. D., fluorescent glucosides of *Diervilla diervilla* and *Symphoricarpos occidentalis*, A., 383.
- McCulloch, A. See Eccles, A.
- McCulloch, Leon, lime process for coating aluminium, B., 16.
- McCulloch, Leon. See also Associated Electrical Industries, Ltd., and Westinghouse Electric & Manuf. Co.
- McCulloch, Lucia, starch-like radiate crystals produced by *Bacterium marginatum* in starch media, A., 115.
- McCulloch, W. B., heat-non-conducting coverings [for domestic cisterns, etc.], (P.), B., 539.
- McCullough, J. F. K. See Ternstedt Mannf. Co.
- McCullough, R., and Gittings, L. D., pilot-plant fractionating column, B., 744.
- McCullough, R. See also Jenkins, R. L.
- McCutcheon, M., Mudd, S., Strumia, M., and Lucké, B., mechanism of opsonin and bacteriotropin action. IV. Isoelectric points of certain sensitised antigens, A., 1319.
- McDermott, F. A., [preparation of] isopropyl lactate, A., 741.
- McDermott, O. L., manufacture of faced articles of cement, such as slabs, panels, cornices, mouldings, etc., (P.), B., 559.
- McDermott, P. J. See Cox, K.
- McDonald, F. G., and Bills, C. E., isomerisation of ergosterol with fuller's earth, A., 1431.
- McDonald, F. G. See also Bills, C. E., and Russell, W. C.

- McDonald, G. A. See Victor Chem. Works.
- Macdonald, J. A., analyses of Trinidad molasses, B., 925.
- McDonald, L. N., furnace port construction, (P.), B., 124.
- MacDonald, M. B., Andes, E. C., and Briggs, F. A., effect of mineral oil treatment on the composition of milk, B., 788.
- MacDonald, R. L., electrolytic cells, (P.), B., 335.
- McDonald Construction Co., W. P. See Berger, O. H.
- McDonnell, H. B., effect of ozone on guinea-pigs, A., 495.
- MacDougall, F. H., activity coefficient of silver acetate, A., 699.
- MacDougall, F. H. [with Smith, L. I.], polymethylbenzenes.
- III. Vapour pressures of the tetramethylbenzenes and penta- and hexa-methylbenzene, A., 847.
- McDougall, R. See Helipebs, Ltd.
- McDowall, F. H., determination of moisture in cheese, B., 529.
- Mace, J., dyo jigs, (P.), B., 945.
- Mace, J. See also Walker & Sons, Ltd., S.
- McElroy, R. L. See Walker, C. M.
- McElvain, S. M. See Bailey, C. F., Crook, K. E., and Koelsch, C. F.
- M'Enderfer, M. E. See Green, F. C.
- McEwen, S., and Coal Oil Extraction, Ltd., apparatus for carbonising or distilling materials, (P.), B., 408*.
- MacFadyen, D. A. See Borsook, A.
- McFarlan, R. L., effect of an electric field on the X-ray diffraction pattern of a liquid, A., 1079.
- McFarland, J. L. See Brit. Thomson-Houston Co., Ltd.
- McFarlane, A. A., heating of retorts by gas from a low-temperature carbonisation plant, B., 271.
- Macfarlane, M. G., action of arsenate on hexosophosphatase, A., 1317.
- Macfarlane, M. G. See also Harden, A.
- Macfie, J. W. S. See Goodson, J. A.
- McGavack, J., and General Rubber Co., treatment of rubber latex, (P.), B., 206*.
- McGavack, J., and Naugatuck Chemical Co., treatment of rubber dispersions, (P.), B., 27.
- treatment of rubber and products obtained thereby, (P.), B., 729.
- treatment of latex and products obtained thereby, (P.), B., 730*.
- McGavack, J. See also Naugatuck Chem. Co.
- McGee, T. A., burning of pulverised fuel, (P.), B., 404.
- McGeehan, C. A., and McGeehan, P. X., filtering device, (P.), B., 746.
- McGeehan, P. X. See McGeehan, C. A.
- M'Geown, P. See Ryan, H.
- McGill, C. T., treatment of boiler water, (P.), B., 400.
- Macgillavry, (Mlle.) C. H. See Smits, A.
- Macgillivray, D., third law of thermostatics, A., 697.
- McGillivray, I. H., inactivation of pancreatic lipase by heat, A., 1317.
- Macgillivray, W. E., and Swallow, J. C., cryostat for use at temperatures from 0° to +160°, A., 1266.
- McGinty, D. A., regulation of respiration. XXXIV. Carbon dioxide content of frog's brain with different oxidations, A., 1199.
- McGlumphy, J. See Gilman, H.
- McGlynn, A., and Brown, O. W., preparation and determination of hyposulphites, B., 55.
- McGough, F. See Freeland, E. M.
- McGowan, W. C., and Milnesia International, Inc., preparing magnesium hydrate tablets, (P.), B., 946.
- McGregor, A. G., precipitating system [for metals], (P.), B., 915.
- MacGregor, M. E., mechanism of electrolytic rectification, A., 304.
- McGregor, R. R. See Beal, G. D.
- McGrew, R. V. See Conant, J. B.
- McGuigan, H. See Pacini, A. J.
- McGuinness, M., [apparatus for] combined heat and pressure treatment of materials, particularly solid or liquid carbonaceous matter, (P.), B., 305.
- Mach, F., and Herrmann, R., litter materials, particularly forest litter, B., 208.
- swelling capacity of dried [beet] slices and the effects of over-heating, B., 300.
- Mach, F., and Lepper, W., use of copper sulphate in place of mercury in Kjeldahl decompositions, B., 216.
- Machado, A., product of interaction of formaldehyde with ammonium sulphate, A., 1559.
- McHargue, J. S., and Roy, W. R., magnesium content of irradiated rats, A., 955.
- Machatschki, F., algononite and whitneyite, A., 280.
- tourmaline group, A., 315.
- formulae of monoclinic amphiboles and pyroxenes, A., 732.
- formation of minerals in the phosphate deposits of Drachenhöhle near Mixnitz (Styria), A., 732.
- fusion of algononite and whitneyite, A., 1017.
- formulae of risörite and fergusonite, A., 1155.
- natural and artificial domeykite, A., 1352.
- berzeliite, A., 1352.
- atopite and mauzeliite, A., 1352.
- Mache, H., specific heat at lines of equal internal energy and equal heat content, A., 24.
- Machebeuf, M., physico-chemical state of cholesteryl esters and lecithin in blood-serum and -plasma, A., 360*.
- Machek, G., linear pentacene series. XVIII. Two isomeric dibromo-derivatives of linear pentacene-5:7:12:14-diquinone, A., 608.
- linear pentacene series. XIX. Constitution of the disubstituted [dibromo-] derivatives of pentacene-5:7:12:14-diquinone, A., 1187.
- Machemer, H., auto-oxidation of complex metallic compounds of indigotin, A., 1048.
- constitution of metallic complexes of indigo colouring matters, A., 1193.
- Machemer, H. See also Bergmann, M.
- Machida, I. See Nagaoka, H.
- Machli, H., influence of the blood-calcium on the pressor action of adrenaline, A., 1069.
- Machin, W., Goudielock, W. B. O'B., and P.M.G. Metal Trust, Ltd., improvement of copper or copper alloys and hardener for use therein, (P.), B., 1116*.
- Machin, W. See also Vickers-Armstrongs, Ltd.
- Machlet, A. W., carburising process [for case-hardening iron and steel], (P.), B., 564.
- Machon, H., hydrogen-ion concentration and tanning effect, B., 679.
- Macht, D. I., [impurities in] wood and animal charcoals, A., 1325.
- Macht, D. I., and Leach, H., action of polarised light on cocaine, A., 111.
- pharmacology of 23 isomeric octyl alcohols, A., 954.
- Macht, F. See Becker, W.
- Machtolf, J., and Hostmann-Steinberg'sche Farbenfabriken G.m.b.H., C., apparatus for production of carbon black, (P.), B., 805.
- Machu, W. See Müller, W. J.
- MacInnes, D. A., and Dole, M., behaviour of glass electrodes of different compositions, A., 423.
- McIntire, C. V., and Consolidation Coal Products Co., [coal-]distillation apparatus, (P.), B., 131.
- retort furnace, (P.), B., 1008.
- McIntire, J. C. See Borgstrom, P.
- McIntosh, D., Bigelow, H. E., and McNevin, W. H., azobisazoxybenzene and its oxidation product, A., 337.
- McIntosh, D. See also Cooper, D. Le B.
- McIntosh, D. H., and Oldright, G. L., treatment of [tin] ores, (P.), B., 288.
- McIntosh, F. F., and Crucible Steel Co. of America, [chromium] alloy steel, (P.), B., 18.
- Macintosh & Co., Ltd., C., and Young, H. C., lining of metal pipes or cylinders with rubber or similar material, (P.), B., 200.
- Macintosh & Co., Ltd., C., Young, H. C., and Hemm, C., coating of metal articles with rubber or similar materials, (P.), B., 627.
- McIntyre, H. K. See Cox, G. C.
- M'Intyre, J. T., heat transmission in surface feed-heaters, B., 351.
- McIntyre, L. H. See Booth, H. S.
- MacIntyre, W. H., and Sanders, K. B., fixation of the potash of a green manure by liming materials, B., 474.
- MacIntyre, W. H., and Shaw, W. M., lime: magnesia ratios in dolomitic limestones as influencing solution and soil reaction, B., 575.
- MacIntyre, W. H. See also Shaw, W. M.
- Mack, G. L. See Weiser, H. B.
- Mack, J. E., and Sawyer, R. A., sodium and magnesium spark lines in the far ultra-violet, and the quantitative application of the irregular doublet law to isoelectronic sequences, A., 510.

- McKay, C. M. See Maynard, L. A.
 McKay, E. H. See Kellogg Co.
 MacKay, E. M., and MacKay, L. L., age and effect of unusual diets, A., 811.
 MacKay, H. S., electrochemical process for extraction of copper and zinc from ores, (P.), B., 64*.
 Mackay, J. E., measurement of the p_H value of rubber latex, B., 432.
 Mackay, J. G., determination of total sulphur in rubber, B., 626.
 Mackay, L. L. See Mackay, E. M.
 McKay, R. F., Willshaw, H., Gorham, W. G., Lee, R. F., and American Anode, Inc., apparatus for circulation of liquids, (P.), B., 1051*.
 McKay, R. F. See also Dunlop Rubber Co., Ltd.
 McKay, R. J., properties of nickel in caustic [soda] evaporation, B., 101.
 McKay, R. J., Fraser, O. B. J., and Searle, H. E., resistance of nickel and monel metal to corrosion by milk, B., 79.
 McKee, A. G., treating [cleaning and cooling] gases, (P.), B., 695.
 McKee, J., ozonation of [animal and vegetable] oils, (P.), B., 66.
 McKee, R. H., insecticide and fungicide, (P.), B., 525.
 recovering alkali, (P.), B., 861.
 McKee, R. H., and Burke, S. P., manufacture of alkyl halides, (P.), B., 754.
 McKee, R. H., Burke, S. P., Brown, R. L., and Odell, W. W., manufacture of higher alcohols, (P.), B., 939.
 McKee, R. H., and Salls, C. M., manufacture of sulphuryl chloride, (P.), B., 766*.
 McKee, R. H., and Southern Electro-Chemical Co., nitric acid concentration, (P.), B., 323.
 McKee, E. P. See Bradley, L.
 McKeehan, L. W., electrical resistance of nickel and permalloy wires as affected by longitudinal magnetisation and tension; electrical resistance and magnetostriction, A., 1504.
 McKeehan, L. W., and Bell Telephone Laboratories, Inc., metallic element [single-crystal iron rod], (P.), B., 288.
 heat-treatment of magnetic materials, (P.), B., 1162*.
 McKenna, P. M., and Vanadium Alloys Steel Co., hard [tungsten] alloy and its manufacture, (P.), B., 465.
 McKenna Brass & Manufacturing Co., Inc. See Leopold, F. B.
 McKenzie, A., Mills, A. K., and Myles, J. R., elimination of the amino-group from tertiary amino-alcohols. VIII. Migratory tendency of the p -tolyl group, A., 778.
 McKenzie, A., and Mitchell, A. G., existence of optically active cinnamic acid, A., 1036.
 mutarotation of optically active esters of α -keto-acids, A., 1288.
 McKenzie, B. F. See Kendall, E. C.
 Mackenzie, F. H., and Lane, M. H., rectifier compound, (P.), B., 21.
 Mackenzie, J. W., waterproofing of fabrics, (P.), B., 1063.
 Mackenzie, K., biochemistry of aluminium. I. Excretion and absorption of aluminium in the pig, A., 1471.
 Mackenzie, (Miss) W. A. See Wishart, J.
 McKeon, J. J., and Tolhurst Machine Works, Inc., [centrifugal apparatus for] treating floatant materials [degumming of silk], (P.), B., 279.
 Mackey, B. H., and Krase, N. W., specific heats of gases at high pressures. III. Results for nitrogen to 150° and 700 atm., A., 1508.
 Mackey, B. H. See also Krase, N. W.
 Mackie, A. See Shoesmith, J. B.
 Mackinlay, W. A. See Gerley, A.
 McKinney, R. S. See Jamieson, G. S.
 McKinnis, R. B., and King, C. G., vitamin-C; electrical transport, A., 1222.
 McKinnis, R. B. See also Bowman, J. R.
 McKinnon, L. R. See Conrad, J. P.
 Mackler, H., Olmsted, J. M. D., and Simpson, W. W., hydrolysis of phosphocreatine and lactic acid formation in frog's muscle, A., 811.
 McLachlan, T., drinking waters for cattle, B., 796.
 MacLane, S. See Langmuir, I.
 McLaren, M. W. See Cole, H. W.
 McLaughlin, G. D. See Blank, I. H., and Cameron, D. H.
 McLaughlin, R. R. See Boswell, M. C.
 Maclaurin, R. D., is smoke responsible for property damage? B., 536.
 MacLean, A. B., and Sullivan, R. C., carbohydrate tolerance in infants and young children with celiac disease, A., 1611.
 dextrose tolerance in infants and young children, A., 1611.
 McLean, H. L. See Blatch, F. H.
 Maclean, I. S. See Hnme, E. M.
 McLean, W., carbon-nitrogen ratio of soil organic matter, B., 875.
 McLean, W. See also Robinson, G. W.
 MacLellan, A. D., mixing apparatus, (P.), B., 269.
 McLennan, J. C., ruthenium a superconductor, A., 281.
 superconducting alloy with resistance-temperature hysteresis, B., 616.
 McLennan, J. C., Allen, J. F., and Wilhelm, J. O., electrical conductivity of ruthenium, A., 532.
 electrical conductivity measurements at low temperatures, A., 1353.
 McLennan, J. C., and Allin, (Miss) E. J., fine structure of spectral lines, A., 2, 3.
 hyperfine structure of some lines in the arc and first spectrum of indium, A., 1329.
 fine structure of some lines in the visible region of the spectrum of thallium. III, A., 1330.
 McLennan, J. C., and Burton, A. C., method of obtaining a visible spectrum of waves of radio frequency, A., 1076.
 heating of electrolytes in high-frequency fields, A., 1376.
 McLennan, J. C., and Cohen, (Miss) E., magnetic susceptibilities of single metallic crystals, A., 532.
 McLennan, J. C., and Crawford, M. F., low atomic energy levels for elements of the oxygen group, A., 2.
 McLennan, J. C., and Durnford, A. M. J. A. W., Zeeman effects for fine structure components of thallium spectral lines, A., 1330.
 McLennan, J. C., and Glass, J. V. S., action of high-speed electrons on methane, and on oxygen and carbon monoxide [mixtures], A., 1532.
 McLennan, J. C., Howlett, L. E., and Wilhelm, J. O., electrical conductivity of certain metals at low temperatures, A., 531.
 McLennan, J. C., and Ireton, H. J. C., spectroscopy of auroral green line radiation, A., 1331.
 McLennan, J. C., and McLeod, J. H., Raman effect with liquid hydrogen, A., 14.
 McLennan, J. C., McLeod, J. H., and Wilhelm, J. O., scattering and absorption of electrons by lead in the superconducting state, A., 516.
 McLennan, J. C., and Monkman, R. J., thermal expansion of zinc and cadmium crystals and the crystal structure of erbium and niobium, A., 533.
 McLennan, J. C., Samson, E. W., and Ireton, H. J. C., phosphorescence of solid argon irradiated with cathode rays, A., 15.
 McLennan, J. C., Smith, H. D., and Wilhelm, J. O., Raman effect in liquid α - and β -hydrogen, A., 521.
 Raman effect with liquid methane, A., 522.
 McLennan, J. C., and Trnbnll, R., absorption of light by gaseous, liquid, and solid xenon, A., 1489.
 McLeod, J. H. See McLennan, J. C.
 Macleod, J. J. R., physiology of glycogen and the rôle of insulin and adrenaline in carbohydrate metabolism, A., 820.
 Macleod, J. J. R., Magee, H. E., and Middleton, W., insulin and increase in weight of young animals, A., 962.
 Macleod, J. J. R. See also Anderson, I. A.
 McMahon, E., and Marvel, C. S., mercurated azo-dyes derived from benzidine and o -tolidine, A., 1051.
 McMahon, J. F., mercury volometer, B., 844.
 MacMahon, J. H. See Pattillo, D. K.
 MacMahon, P. S. See Chatterji, A. C., and Nayar, M. R.
 McMaster, L., and Steiner, A., amination of 2:5-dichloronitrobenzene, B., 600.
 McMaster, P. D. See Drury, D. R.
 MacMichael, H. R., and American Smelting & Refining Co., operating a hearth-type furnace [for lead ores], (P.), B., 17.
 McMichael, P., cheaper ammonia with off-peak electric power, B., 987.
 McMichael, P. See also Barnard, M.
 Macmillan, W. G., and Reade, T. H., formation of N -nitrosoamines from tertiary amines. I. Conversion of derivatives of dimethylaniline by nitrous acid into the corresponding nitrosoamines and monomethylanilines, A., 204.
 Macmillan, W. G. See also McCombie, H.
 McMillen, E. L., wetting of pigments and its relation to various paint characteristics, B., 110.
 adhesion-tension cell in paint investigations, B., 1038.

- McMillen, J. H., angle and energy distribution of electrons scattered by helium, argon, and hydrogen, A., 1493.
- McMullen, C., testing refractory cements, B., 462.
- MacMullin, R. B., Guyer, J. A., and Mathieson Alkali Works, Inc., manufacture of calcium hypochlorite, (P.), B., 904.
- McMullin, R. B., and Mathieson Alkali Works, Inc., production of hypochlorite compositions, (P.), B., 862*.
- McMullin, R. B., Taylor, M. C., and Mathieson Alkali Works, Inc., production of hypochlorite compositions, (P.), B., 862*.
- MacMullin, R. B. See also Mathieson Alkali Works.
- McMurtrey, J. E. jun. See Garner, W. W.
- McNabb, W. N., and Wagner, E. C., evaluation of stibnite. II. Determination of antimony, B., 912.
- McNair, C. S., light filter, (P.), B., 747.
- McNair, J. B., characteristics of vegetable oils, A., 1627.
- McNair, L. C., and Hirst, J. F., rapid determination of dust in air, B., 169*.
- McNally, J. G., and Sheppard, S. E., double refraction in cellulose acetate and nitrate films, A., 287.
- McNally, J. G., and Vanselow, W., fluorescence of cellulose acetate, cellulose nitrate, and gelatin in ultra-violet light, A., 1500.
- McNally, J. G. See also Kriebel, V. K., and Sheppard, S. E.
- Macnaughtan, D. J., determination of the porosity of electrodeposits, B., 867.
- Macnaughtan, D. J., and Hammond, R. A. F., influence of small amounts of chromic acid and of chromium sulphate on the electrodeposition of nickel, A., 1134.
- Macnaughton, D. J., and Hotherhall, A. W., "stopping-off" materials for use in the electrodeposition of nickel, B., 564.
- hardness and polishing of electrodeposits, B., 616.
- McNeil, C., heat-exchanging device, (P.), B., 128*.
- McNeil, J., nickel casting alloys, B., 911.
- McNevin, W. H. See McIntosh, D.
- McNish, A. F. See Moncrieff, Ltd., J.
- McNutt, J. D., and Winchester Repeating Arms Co., [non-corrosive] priming mixture, (P.), B., 1048.
- Macovsky, E. See Tanasescu, I.
- McPhail, M. See Hutchinson, A. H.
- MacPherson, D. A., determination of amino-nitrogen in bacteriological media, A., 1220.
- McQuarrie, I., and Sheahan, R. T., protein metabolism of children on diets extremely low in carbohydrates, A., 495.
- McRae, D. B., and Tolman, R. C., reflexion and transmission of light by photographic plates, A., 1534.
- McRae, J. A., and Kuehner, A. L., condensation of benzoin and benzil with ethyl cyanoacetate, A., 1289.
- McSweeney, D. T. See Reilly, J.
- McSwiney, B. A. See Vass, C. C. N.
- McTaggart, A. W., device for separating and concentrating ores, (P.), B., 513.
- McTaggart, H. A., Brownian movement in surface films, A., 539.
- Macura, H. See Bunge, F. C.
- Macurevitch, I., by-products obtained in the reduction of phenylhydrazones to primary amines, A., 459.
- action of benzamide on semicarbazide hydrochloride, A., 598.
- McVicar, G. A. See Beare, W. G.
- Macy, I. G., and Outhouse, J., vitamin content of milk used in infant feeding, A., 1308.
- Macy, I. G., Hunscher, H. A., Nims, B., and McCosh, S. S., metabolism of women during the reproductive cycle. I. Calcium and phosphorus utilisation in pregnancy. III. Calcium, phosphorus, and nitrogen utilisation in lactation with and without supplementation of the diet with cod-liver oil and yeast, A., 635.
- Maczynski, M., and Skalmowski, W., standards for and methods of testing of Polish road asphalts, B., 511.
- Madden, T. H., coke grading and coal blending, B., 494.
- Madders, G. See Brounsey, P.
- Madders, K., and McCance, R. A., effect of pentose ingestion on uric acid excretion, A., 243.
- Madders, K. See also McCance, R. A.
- Madesani, F. See Bargellini, G.
- Madge, E. W., variation of the viscosity of a liquid with temperature, A., 1105.
- Madge, E. W. See also Dunlop Rubber Co., Ltd.
- Madgin, W. M., photomicrographic methods applied to two-component salt mixtures, A., 537.
- Madinaveitia, A., and Bootella, A., sand-cement [mixtures], B., 558.
- Madinaveitia, A., and Sáenz de Buruaga, J., derivatives of methyl-naphthalenes, A., 91.
- Maeda, T., and Syözi, R., volumetric analysis of magnesium salts, A., 881.
- Mählmann, K. See Krauss, F.
- Maffei, A., siliceous sands of Monte Soratte, A., 56.
- Magaram, M. E., blood-amylase in bacterial infections, A., 365.
- Magat, M. See Bergmann, E.
- Magee, H. E. See Macleod, J. J. R.
- Magee, M. C., and Smith, H. G., determination of reducing sugar in bacteriological media, A., 643.
- Magers, A. W. See Dains, F. B.
- Magidson, O. G., petroleum method of iodine extraction, B., 904.
- Magidson, O. Y., and Baitschikov, A. G., influence of sodium chloride on the oxidation of iodine by potassium chlorate, A., 1130.
- adsorption capacity of starch and iodine-starch, A., 1246.
- Magini, U. See Établ. Cauvet-Lambert.
- Magistad, O. C., use of artificial zeolites in studying base-exchange phenomena, B., 341.
- rate of loss of replaceable potassium [from soils] by leaching, B., 1123.
- Magistris, H., and Schäfer, P., organic phosphorus compounds in plants and animals. I. Phosphatides and lecithides from the bean (*Vicia faba*). II. Diffusion of water-insoluble phosphatides and of the colouring matter of the cells from the carrot (*Beta vulgaris*, *Rapa f. rubra*), A., 260.
- Magnasco Roggero & Co., manufacture of plastic and mouldable materials, (P.), B., 111.
- manufacture of pressed or moulded articles, (P.), B., 414.
- manufacture of pressed or moulded articles [from cellulosic materials], (P.), B., 872.
- Magnesium Co., Ltd. See Ashcroft, E. A.
- Magnet-Werk G.m.b.H. Eisenach Spezialfabrik für Elektromagnet-Apparate, machine for production of wood pulp for manufacture of paper, (P.), B., 505.
- Magnus, A., Giebenhain, H., and Velde, H., calorimetric determinations of heats of adsorption; adsorption of sulphur dioxide by wood charcoal, A., 1364.
- Magnus, A., and Grähling, K., adsorption of oxygen and ozone on silicic acid gel, A., 28.
- Magnus, A., and Heymann, E., nature of pyrosols, A., 286.
- Magnus, A., and Holzmann, H., specific heats of tantalum, tungsten, and beryllium between 100° and 900°, A., 24.
- Magnus, A., and Kratz, H., adsorption of carbon dioxide and ammonia on charcoal and graphite, A., 150.
- Magnus, A., and Müller, A., adsorption of chlorine on silica gel, A., 990.
- Magnus, H., cracking or distillation of hydrocarbon oils, (P.), B., 180.
- [Hellig comparator for] p_H control in various industries, B., 351.
- Magnusson, T. See Siegbahn, M.
- Magoon, C. A. See Culpepper, C. W.
- Maguire, S. M. See Drumm, J. J.
- Maguire, Inc. See Brackelsberg, C. A.
- Magyar, P., studies of roots in plantations and in alkaline soils, B., 582.
- Mahadevan, C., X-ray study of natural and fossil resins, A., 1504.
- further X-ray studies of carbonaceous and bituminous materials, B., 697.
- Mahant, S. D., effects of electrodeless discharge on potassium chlorate, bromate, and iodate, A., 173.
- Mahanti, P. C., dielectric constants of binary mixtures. II. Alcohols in benzene, A., 146.
- dipole moment of homologous series, A., 841.
- band spectra of copper oxide, A., 838.
- Mahanti, P. C. See also Ghosh, P. N.
- Mahdihasson, S., hydrogen-ion concentration in the interior of the cells of *Fusarium lini*, B., and of yeast, A., 1620.
- Mahew, J. See Deforge, A.
- Mahler, P., and Alberene Stone Co., hardening of alberene stone, (P.), B., 949.
- Mahler, P., and Darco Sales Corporation, treatment of dye effluents, (P.), B., 321*.
- bleaching of beeswax, (P.), B., 519.
- Mahlie, C. C. See Nead, J. H., and Wehr, E. R.
- Mahlkuch, E., apparatus for mixing meal or powder with finely-divided liquids or gases, (P.), B., 306.
- Mahood, G. H. See Tyrer, C.
- Mahr Manufacturing Co. See Hortvet, R. M.

- Maier, C. G., cement for silica-glass joints, B., 906.
heat of formation of zinc oxide, A., 1252.
- Maier, L. See Kochmann, M.
- Maier-Bode, H., skin- and bone-glues, B., 783.
- Maier-Bode, H. See also Binz, A.
- Maignon, F., transformation of fats into sugars *in vivo*; application to the treatment of diabetes, A., 106.
- Maignon, F., and Knithakis, E., physiological acidosis in the dog, A., 245.
influence of sodium hydrogen carbonate on ketonic metabolism of the dog in physiological acidosis, A., 245.
- Mailhe, A., and Renaudie, transformation of ethylene into liquid and solid hydrocarbons, A., 1157.
- Mailhe, A., and Sabron, catalytic decomposition of pentachloroethane, A., 735.
- Maillard, F. G., conversion of textile vegetable fibres into threads having the texture of wool, (P.), B., 709.
- Maimeri, C. See Willstätter, R.
- Main, E. R. See Locke, A.
- Main, G., incandescence electric lamps [with internal reflectors], (P.), B., 567.
- Main, J. A., manufacture of [withered] tea, (P.), B., 1168.
- Main, S. A. See Haddfield, (Sir) R.
- Maino, M. M. See Fratini, B.
- Mainz, H., fractionating head, A., 1153.
- Mainz, H. See also Weissberger, A.
- Mainzer, F., and Shen, T. C., equilibria between carbon dioxide and phosphate solutions; theory of the carbon dioxide fixation curve, A., 102.
determination of gaseous tension in urine and other liquids containing carbonate, A., 364.
- Maisin, J., Mund, W., Pourbaix, Y., and Castille, A., conversion of ergosterol into vitamin-D under the influence of radium emanation, A., 1481.
- Maitland, P., and Tucker, S. H., condensation of fluorene with acetone. I. Action of magnesium 9-fluorenyl bromide on (a) acetone, (b) diacetone alcohol; the question of two forms of 9-isopropylidene fluorene, A., 85.
- Maity, B. B. See Brahmachari, U. N.
- Maiuri, G., and Bossini, R. F., refrigerating apparatus of the absorption type, (P.), B., 1051.
- Maiuri, G. See also Bossini, R. F.
- Maiwald, K., nutrient intake and dry matter production by buckwheat (*Fagopyrum esc.*) and the yield law of higher plants, B., 735.
- Majdel, J., Nissonson and Neumann's method for the determination of copper [by boiling with a thiosulphate], A., 53.
universal gravimetric method for the separation and determination of manganese, A., 1149.
separation of barium from lead sulphate by means of ammonium acetate, A., 1544.
analysis of chromite and determination of chromium, B., 330.
- Majer, V., apparatus for measurement of change in gas volume at constant pressure, A., 568.
- Majewski, F. See Korczewski, M.
- Majima, R., identity of japaconitine and aconitine; two new *Aconitum* alkaloids, A., 486*.
- Majima, R., and Kotake, M., syntheses in the indole group. VII. Nitration and bromination of indole-3-carboxylic ester and a new synthesis of the dye of ancient purple, A., 1444.
- Majima, R., and Morio, S., hyphaconitine, a new *Aconitum* alkaloid, A., 228.
identity of aconitine-A, japaconitine-A, and japaconitine-A₂, A., 229.
summarised observations on *Aconitum* alkaloids, A., 229.
- Major, R. H., and Weber, C. J., depressor substances in certain tissue extracts, A., 104.
relationship of potassium to the depressor effect of liver extract, A., 1213.
- Major, R. T. See Jones, L. W.
- Major & Co., Ltd., and Hinchliffe, H. H., sulphonation of aromatic hydroxy-derivatives, (P.), B., 705.
- Major & Co., Ltd., Hinchliffe, H. H., and Darby, W. J., manufacture of azo-dyes [for lakes], (P.), B., 756.
- Majumdar, K., method of horizontal comparison in the location of spectra of elements. II., A., 511.
- Majumdar, R. C., and Kothari, D. S., "common third level" in the Raman effect, A., 275.
thermal ionisation in degenerate systems, A., 836.
- Makarov, S. Z. See Kurnakov, N. S.
- Makárova, K. A. See Vladimirov, G. E.
- Makárova-Semlianskaja, N. N. See Rutovski, B. N.
- Maki, T., action of alkali on 2-aminoanthraquinone at 150°, A., 346.
formation-curve of 2-aminoanthraquinone in the presence of sodium dichromate, A., 346.
anthraquinoneazo-compounds. I. Some anthraquinoneazo- β -naphthols, A., 346.
velocity of decomposition of indanthrone by molten alkali, A., 347.
- Makimura, H., vitamins in bile, A., 505.
- Makino, S., corrosion of the zinc electrode in a dry cell during open circuit, B., 774.
materials for dry cells. I. and II., B., 1034.
- Makino, S. See also Kaneko, S.
- Makray, I. von, distribution of carbon, hydrogen, nitrogen, sulphur, and oxygen in the hydrogenation products of anocene brown coal, B., 354.
- Makris, K. G., sensitive test for ammonia, A., 1263.
- Maksimov, A., physiological reaction of ammonium salts and nitrates, A., 1323.
- Mal, R. S. See Bhatnagar, S. S.
- Maláč, See Novák.
- Malachowski, R. See Hildt, W.
- Malachta, S. See Votoček, E.
- Malaprade, L., volumetric determination of cobalt: application to special steels, B., 561.
- Malaprade, L. See also Travers, A.
- Malcolm, J., and Pope, E. A., seasonal variation in the vitamin content of New Zealand butter, B., 346.
- Malcor, M. M. G., production of soft water from sea water, (P.), B., 84.
- Malet, G. See Chuit, P.
- Malet, J. See Haendel, M.
- Malhotra, K. L., and Suri, H. D., systems potassium sulphate, cadmium sulphate, and water, and ammonium sulphate, cadmium sulphate, and water at 25°, A., 1374.
- Malhotra, R. C., influence of the degree of pulverisation and weight of samples on quantitative analyses, especially of plant-tissues, A., 1628.
- Malichatka, N., accumulator with an alkaline electrolyte, (P.), B., 201.
- Malin, P. C. See Marlo Refrigerating Co., Ltd.
- Malinovski, A., raw and white ground-coat [for enamels], B., 613.
- Malinovski, A. E., and Lavrov, F. A., influence of an electric field on the combustion of gases, A., 424.
- Malinovski, V. See Ipatiev, V. N.
- Malitzky, V. P., and Tubakaiev, V. A., microchemical detection of sodium with zinc uranyl acetate, A., 181.
- Maljarov, K. L., determination of alkalis in waters and in silicates by a semi-microchemical method, A., 443.
- Malkin, T., "acid" potassium and sodium salts of normal fatty acids, A., 1162.
X-ray examination of higher normal primary alcohols, A., 1350.
- Malkin, T., and Nierenstein, M., action of diazomethane on aromatic acyl chlorides. V. Mechanism of the reaction, A., 771.
reduction of quercetin, A., 1189.
- Malkin, T. See also Francis, F., and Piper, S. H.
- Malkomesius, P., and Schramm, W., soya-bean extract residues from different processes, B., 740.
- Malkowa, S. See Weizmann, M.
- Malkowski, S., and Kowalski, M., character and distribution of clays in Poland, A., 1397.
- Mallen, (Miss) C. E. See Iredale, T.
- Mallery, A. H., and Mallery Process Corporation, utilisation of residue [mineral] oils containing water, (P.), B., 314*.
- Mallery Process Corporation. See Mallery, A. H.
- Mallet, M., and Newton Chambers & Co., Ltd., gas washer, (P.), B., 491*.
- Mallinckrodt Chemical Works, metal containers for ether, (P.), B., 586*.
- Mallison, H., chemistry and physics of road tar, B., 89.
- Malloch, E. S., and Baltzer, C. E., use of gas and by-product cokes for domestic heating purposes, B., 128.
comparative tests of various fuels when burned in a domestic hot-water boiler, B., 445.
- Malloch, J. G. See Cook, W. H.
- Mallon, M. C., Jordan, R., and Johnson, M., retention of calcium on diets rich and poor in fat, A., 1314.
- Malm, C. J. See Clarke, H. T., and Kodak, Ltd.

- Malm, *F. S.*, and Western Electric Co., Inc., [rubber] composition [for submarine insulation], (P.), B., 873.
- Malm, *K. G.* See Aktieb. Separator-Nobel.
- Malm, *L.*, steam and power production in the soda-house of sulphate-cellulose works equipped with vacuum evaporators and waste-gas steam boilers, B., 235.
- Malm, *L.* See also Taft, *R.*
- Malone, *G. B.*, and Reid, *E. E.*, regularities in the m. p. of crystalline derivatives of various aliphatic alcohols, A., 58.
- Malotau, *R. N. M. A.* See Straub, *J.*
- Malowan, *S. L.*, colour reactions of molybdenum, A., 183.
- organic compounds of molybdenum, A., 1571.
- molybdenum and its applications, B., 1158.
- Malquori, *G.* See Parravano, *N.*
- Malsch, *J.*, dielectric constant and association, A., 135.
- Maltaner, *E.* See Wadsworth, *A.*
- Maltaner, *F.*, preparation of lecithin, A., 803.
- Maltaner, *F.* See also Wadsworth, *A.*
- Maltby, *J. G.*, classification of the sugars. II., A., 195.
- Malvezin, *P.*, use of potassium ferrocyanide in wine-making, B., 78.
- stabilising of fermented liquids, (P.), B., 213.
- determination of ferrous iron in white wines, B., 1043.
- Malyarevski, *V. I.*, and Papkov, *V. V.*, manufacture of synthetic nitric acid, B., 903.
- Malyatski, *A.*, and Nakashidze, *B.*, determination of sulphur [in oils] by the bomb method, B., 596.
- Mambourg, *L.*, and Libbey-Owens Glass Co., non-reversible [regenerative] furnace, (P.), B., 398.
- Mamoli, *L.* See Bozza, *G.*
- Manby, *J.*, photomicrographs of wool fibres: new method, B., 898.
- Manceau, *C.*, manufacture of aromatic sparkling wines, (P.), B., 345.
- Manchester Furnaces, Ltd. See Russell, *J. S.*
- Manchot, *W.*, action of ozone on ammonia, A., 877.
- Manchot, *W.*, and Düsing, *J.*, potassium ruthenitrosopentacyanide, an analogue of potassium nitroprusside, A., 899.
- Manehot, *W.*, and Enk, *E.*, compound of univalent ruthenium, A., 1141.
- Manchot, *W.*, and Funk, *H.*, forms of silicon, A., 1007.
- Manehot, *W.*, and Lehmann, *G.*, formation of carbonyl chloride by the action of carbon monoxide on the halides of the platinum metals, A., 875.
- Mandel, *H.*, quantum theory of electrons, A., 514.
- Mandell, *A. J.*, manufacture of porous [ceramic] objects, (P.), B., 419.
- Mandelstam, *L.*, Landsberg, *G.*, and Leontovitch, *M.*, theory of molecular scattering of light in crystals (classical theory), A., 397.
- Mandelstam, *L.* See also Landsberg, *G.*
- Mandleberg & Co., Ltd., *J.*, and Lloyd, *J.*, decorative treatment of [india-rubber or] waterproof fabrics, (P.), B., 385.
- Manegold, *E.*, collodion membranes. III. Dialysis through collodion membranes and the relation between dialysis, diffusion, and membrane structure, A., 154.
- Manegold, *E.*, and Hofmann, *Remigius*, collodion membranes. IV. Permeability of the membranes to water, A., 288.
- collodion membranes. V. Specific permeability of collodion membranes for molecular solutions, A., 539.
- collodion membranes. VI. Sieve effect of membranes on homodisperse dissolved substances, A., 638.
- collodion membranes. VII. Specific permeability of collodion membranes for a polydisperse chromic oxide sol, A., 851.
- collodion membranes. XI. Sieve effect of membranes on a polydisperse chromium hydroxide sol, A., 1111.
- collodion membranes. VIII. Theory of sieve effect of ideal membranes on polydisperse dissolved particles, A., 1112.
- Manetti, *G.*, Benaglia, *P.*, and Luchsinger, *M.*, production of pictures in one or more colours on metallic bases, (P.), B., 624.
- Manger, *J.* See Schübel, *K.*
- Manicardi, *C.*, attempt to apply the cryoscopic method to the analysis of altered milk, B., 637.
- Manicke, *P.* See Poethke, *W.*
- Manini, *A.* See Zappi, *E. V.*
- Manjunath, *B. L.* See Jois, *H. S.*, and Katti, *M. C. T.*
- Manke, *G.* See Neumann, *B.*
- Mankenberg, *B.*, and Agfa Ansco Corporation, development of photographic reversal films, (P.), B., 1169*.
- Mankin, *W. R.*, determination of total chlorides in tissue, A., 363.
- Mankodi, *C. L.* See Prasad, *M.*
- Manley, *C. H.*, occurrence of antimony and tin in foil-wrapped cheeses, B., 483.
- Manley, *C. H.*, and Sutton, *R. W.*, a standard for potted meat, B., 215.
- Manlove, *Alliott & Co., Ltd.* See Alliott, *E. A.*
- Mann, *F. C.* See Bollman, *J. L.*, Childrey, *J. H.*, and Wilhelmj, *C. M.*
- Mann, *F. G.*, constitution of complex metallic salts, A., 1404.
- Mann, *H. B.*, availability of manganese and of iron as affected by applications of calcium and magnesium carbonates to the soil, B., 961.
- Mann, *J. C.* See Butler, *E. W.*
- Mann, *J. T. W.* See Linstead, *R. P.*
- Mann, *P. J. G.*, and Woolf, *B.*, action of salts on fumurase. I., A., 814.
- Mann, *R. J.* See Ellis, *G. H.*
- Mann, *W.*, manufacture of soaps, (P.), B., 518.
- Mann, *W.* See also Chetwin, *H. W.*
- Manneback, *C.*, optical anisotropy and theoretical intensities of Raman lines in diatomic gases, A., 134.
- intensity and polarisation of coherent and incoherent radiation scattered by diatomic molecules, A., 840.
- Mannens, *M. J.* See Pieters, *H. A. J.*
- Mannich, *C.*, synthesis of 1-phenyl-2-methyl-3:4-cyclotrimethylene-5-pyrazolone, A., 223.
- manufacture of compounds of 1-aryl-2-alkyl (or -2-aralkyl)-3:4-trimethylene-5-pyrazolones with dialkyl- and aralkyl-barbituric acids, (P.), B., 1169.
- Mannich, *C.*, and Falber, *M.*, papaverine-like bases, A., 97.
- Mannich, *C.*, and Mohs, *P.*, derivatives of a condensed bicyclic system formed from two piperidine rings, A., 618.
- Mannich, *C.*, Mohs, *P.*, and Mauss, *W.*, glucosides of *Digitalis lanata*, Ehrh., A., 1561.
- Mannich, *C.*, and Mück, *M. W.*, derivatives of a bicyclic system of condensed pyrazole and pyran rings, A., 483.
- derivative of a condensed, bicyclic system from a pyran and piperidine ring, A., 622.
- Mannich, *C.*, and Nadelmann, *A. H.*, hydrogenation of liquid acid anhydrides, A., 740.
- Manning, *J. E.* See Allmand, *A. J.*
- Manolescu, *O.* See Angelescu, *E.*
- Manstfeldt Akt.-Ges. für Bergbau & Hüttenbetrieb, Krebs, *H.*, and Borchers, *R.*, apparatus for producing sulphuric acid, (P.), B., 282.
- Manske, *R. H. F.*, occurrence of *d*-mannose in seaweed; separation of *l*-fucose and *d*-mannose, A., 825.
- Manske, *R. H. F.* See also Lapworth, *A.*
- Mantegazza, *A.*, distribution of arsenic in the organism after intravenous injection, A., 1061.
- Mantel, *H.*, low-temperature carbonisation [of coal] in thin layers, B., 592.
- Mantel, *S.*, silication of limestone for road surfaces, B., 420.
- Mantel, *S.* See also Wasilewski, *L.*
- Manufactures de Machines Auxiliaires pour l'Électricité et l'Industrie, extraction of oils from fish livers, (P.), B., 25.
- Manufactures de Machines Auxiliaires pour l'Électricité et l'Industrie, and Texier, *D. A. L.*, impregnation of articles of wood, tissue, paper, cardboard, etc., with varnishes of synthetic resins, (P.), B., 726.
- Manufacturing Improvement Corporation. See Brown, *C. A.*
- Manville-Jencks Co., and Merriman, *I. B.*, manufacture of rayon [artificial silk], (P.), B., 368.
- Manz, *G.* See Braun, *J. von.*
- Manz, *H.*, removal of oxygen from water, (P.), B., 688.
- Mapson, *L. W.* See Cook, *R. P.*
- Maraeineanu, (*Mlle.*) *S.*, effect of solar radiation on radioactive phenomena and transmutation, A., 270.
- supposed transmutation of lead, A., 394.
- Marangoni, *E.*, and Lamort, *M. J.*, influence of solvents in the preparation of cyclic thiocarbamides, A., 81.
- Marble, *A.* See Bauer, *W.*
- Marburg, *E. C.* See I. G. Farbenind. A.-G.
- Marcelet, *H.*, spectrographic analysis of the fluorescence of some vegetable oils observed under ultra-violet rays, B., 674.
- Marcelet, *H.*, and Debono, *H.*, spectrographic analysis of the varying fluorescence of olive oil as observed with ultra-violet light, B., 825.
- Marcelin, *A.*, and Boudin, (*Mlle.*) *S.*, coloured stratifications [produced] by sublimation, A., 1111.
- coloured layers produced by sublimation, A., 1366.

- March, A. See Rosenblatt, M.
- March, M. See "Kolloidchemie" Studienges. m.b.H.
- Marchal, G., discovery, preparation, properties, and applications of beryllium, B., 424.
- Marchand, H., conversion of heavy into light hydrocarbons, (P.), B., 358.
- Marchlewski, L., phyllocerythrin, A., 258, 793.
- Marchlewski, L., and Wyrobek, O., absorption of ultra-violet light by cinnamic and hydrocinnamic acids, A., 10.
- Marchlewski, L. See also Boryniec, A., Charlampowiczowna, B., and Kwiecinski, L.
- Marconi's Wireless Telegraph Co., Ltd., and Roberts, W. van B., electron-discharge tubes, (P.), B., 996.
- Marcotte, E., gasification of lignite, peat, and wood, B., 88.
- Marcovitch, M. B., rectification of gaseous products from crude oil cracked in the vapour phase, B., 130.
- Marcovitch, S., and Stanley, W. W., insecticidal properties of cyolite and barium fluosilicate, B., 387.
- two arsenical substitutes [insecticides], B., 680.
- Marcus, M., and Christensen, (Mrs.) K. H., retting of textile fibres, (P.), B., 759.
- Marcusson, J., analysis of cold asphalts, B., 173.
- determination of tung oil, B., 467.
- Marcusson, J., and Bauerschäfer, W., ageing of mineral oils, B., 649.
- Marcusson, J., and Lederer, P., determination of tar and bitumen in mixtures, B., 934.
- Marden, J. W., Rentschler, H. C., and Westinghouse Lamp Co., production of composite [metallic] body; [filament for radio valves], (P.), B., 162.
- Marden, J. W. See also Westinghouse Lamp Co.
- Mardles, E. W. J., and Moss, H., deterioration of cracked spirits by gumming, B., 446.
- Marceak, V. See Ohle, H.
- Marck, A., production of structural forms of small dimensions of colloidal material, especially of glue or gelatin, (P.), B., 629.
- Marenzi, A. D., and Laclau, N. C., oxygen consumption in tissues of rats fed on a diet poor in cystine, A., 1613.
- Mares, V., determination of the true sugar content of beets in factory control work, B., 924.
- Maresca, T. See Giordani, F.
- Margaillan, L., vitamins and refining of olive oil, A., 1625.
- Margenau, H., variation of the number of free electrons in metals with temperature, A., 835.
- theory of molecular forces in dipole gases, A., 1349.
- Margetson, O. See Hazlehurst, H. E.
- Marggraaf, I. See Baumgarten, P.
- Margolin, L. T., and Buchteyev, S. F., determination of uric acid, A., 386.
- Marguet, J. U., gas producers, (P.), B., 937.
- Marian, S., rendering animal hair capable of felting, (P.), B., 236.
- Marié, L., weathering of Yugoslavian granites, A., 187.
- antimonite of Media-Izlake in Slavonia, A., 1155.
- Marica, L., potentiometric determination of alkaloids by means of potassium mercuri-iodide, A., 486.
- Marie, C., and Gérard, electrolytic deposition of copper [from copper sulphate] in the presence of amino-acids, A., 707.
- Marie, C., and Haenny, C., ammonia-oxygen gas cell; formation of nitrates and nitrites in presence of alkalis, A., 715.
- Marie, C., and Lejeune, G., electrolytic oxidation of ether in presence of perchloric acid, A., 45.
- Mariller, C., treatment of pyroligneous acid and extraction of acetic acid and alcohol, B., 89.
- influence of salts on the distillation of alcoholic mixtures; the case of chlorides, B., 345.
- alcoholometry, B., 345.
- Mariller, C. See also Soc. Indust. de Landrecies.
- Marimpietri, L. See Morani, V.
- Marinero, G., Draganesco, S. Z., and Grigoresco, D., toxic action of methyl alcohol, A., 369.
- Marinero, N., dielectric polarisation and structure of hydrophilic colloids, A., 156.
- Marini, M. See Gloess, P.
- Marino, Q., pickling and cleaning steel and iron, (P.), B., 197.
- electrodeposition of a coating of zinc [on iron or steel], (P.), B., 670.
- cleaning or scouring iron and steel by electrochemical means, (P.), B., 671.
- Marino, S., and De Bonis, G., hæmolytic power of spleen, A., 491.
- Marion, L. See Hibbert, H.
- Mariotti, A. See Levi, M. G., and Padovani, C.
- Marischka, C., combined gas and steam producer, (P.), B., 977.
- Marita, Z. See Kondo, H.
- Maritime Fish Corporation, Ltd., [apparatus for] freezing fish, meat, and other foodstuffs, (P.), B., 393.
- Marjanović, V. See Njegovan, V.
- Mark, H., space lattice of diethylphthaloyl ketone, A., 401.
- behaviour of high polymers in solution, A., 1517.
- Mark, H., and Mehner, H., space lattice of diethylphthaloyl ketone, A., 401.
- Mark, H., and Susich, G. von, X-ray investigation of methyl-cellulose, A., 1098.
- natural width of X-ray emission lines, A., 1491.
- Mark, H., and Valkó, E., processes in the mechanical deformation of rubber, B., 1121.
- Mark, H., and Wierl, R., diffraction of electrons by a molecule, A., 390.
- determination of atom factors by means of electrons, A., 514.
- determination of molecular structure by diffraction of an electron stream, A., 1336.
- Mark, H., and Wolf, Karl, capture of electrons by protons, A., 1231.
- Mark, H. See also Dunkel, M., Fikentscher, H., Hengstenberg, J., and Meyer, K. H.
- Markels, L., purifying exhaust gases of internal-combustion engines, (P.), B., 854.
- Markham, (Sir) C., absorption refrigerating apparatus, (P.), B., 540.
- Markley, J., Brennan, E. M., and Bauer Bros. Co., attrition mills, (P.), B., 537.
- Markley, K. S., composition of cottonseed hull bran, B., 927.
- Markley, K. S., and Reid, E. E., reaction between thiocarbonyl and chloroacetic acid in alcohol and acetic acid solution, A., 928.
- condensation of 2,4-diketo-3-phenylthiazole with aromatic aldehydes, A., 1300.
- Markley, M. C., certain effects of varying the pH of the tempering water on the wheat proteins, B., 683.
- Markman, A., hydrogen for hydrogenation, B., 1149.
- Markman, A., and Kovalenko, M., infusorial earth from Akhalt-zikh and floridin from Kutais, B., 1026.
- Marko, D. M., perm petroleum, B., 595.
- Markova, A. A. See Martinson, E. E.
- Markowicz, E., drying tests on soya-bean oil, B., 826.
- Marks, M. C. See Taylor, T. W. J.
- Marks, S. See Morrell, R. S., and Taylor, T. W. J.
- Markwood, L. N., direct determination of oil in oil-water-soap emulsions, B., 891.
- Marlatt, A. L. See Clow, B.
- Marle, D. J. van, and Buffalo Foundry & Machine Co., Inc., drying of liquid materials, (P.), B., 1134.
- Marley, H. E., cadmium-selenium red, B., 676.
- Marley, W. G. See Dufton, A. F.
- Marlo Refrigerating Co., Ltd., and Malin, F. C., refrigerant, (P.), B., 398.
- Marloth, B. W. See Täufel, K.
- Marnette, E. See Vercruysse, J.
- Marotta, D., chloromethyl carbonate, A., 575.
- Marotta, D., and Alessandrini, M. E., hexamethylenetetramine. I. Hexamethylenetetramine and hydrogen peroxide. II. Action of halogens, A., 459.
- Marotta, D., and Di Stefano, F., panification [of flour] in presence of de-acidifying agents, B., 33.
- maturation of flour: supposed maturation by the action of peroxides, B., 262.
- Marotta, D., and Sica, C., composition and classification of Italian mineral waters, A., 448.
- Marque, J. See Fleury, P.
- Marqueyrol, M., hygroscopicity of powder B and various nitro-glycerin powders, B., 795.
- loss on heating of powder B and nitroglycerin powders, B., 795.
- Marr, R. A., and Ramar Syndicate, Inc., cementitious product [from cellulosic material], (P.), B., 708*.
- Marr, Z. M., compound for filling recesses in metal castings, etc., (P.), B., 719.
- Marrack, J. R., and Smith, F. C., composition of diphtheria toxin-antitoxin floccules, A., 377.
- Marrack, J. R. See also Smith, F. C.
- Marran, G. F., œstrin. II. Methods of purification, A., 254.
- preparation of œstrin, A., 378.

- Marrian, *G. F.*, œstrin. III. Improved method of preparation and isolation of active crystalline material, A., 821.
œstrin. IV. Chemical nature of crystalline preparations, A., 1320.
- Marrian, *G. F.* See also Marrian, *P. M.*
- Marrian, *P. M.*, and Marrian, *G. F.*, micro-determination of hydroxyl groups, A., 1159.
- Marriott, *R. H.* See Lloyd, (*Miss*) *D. J.*
- Marsais, *P.*, blue [haze] in Champagne wines, B., 344.
- Marsden, *A.* See Filma Oil Burners, Ltd.
- Marsh, *A. M.*, and Allis-Chalmers Manuf. Co., disintegrating mill, (P.), B., 1050.
- Marsh, *C. T. N.*, determining volatile hydrocarbons in soap, B., 620.
- Marsh, *F. E.*, and Mans, *W. K.*, volatile oils in plant economy, A., 966.
- Marsh, *J. T.* See Foulds, *R. P.*
- Marsh, *W. J.* See Hooker, *A. H.*
- Marshall, *A.*, vapour pressure of nitroglycerin and nitroglycol, B., 84.
- Marshall, *A. L.*, and Knudson, *A.*, formation of vitamin-D by monochromatic light, A., 1005.
- Marshall, *C. E.*, determination of distribution curve of poly-disperse colloidal systems, A., 411.
orientation of anisotropic particles in an electric field. I. General. II. Application to the determination of the double refraction of clays, A., 854.
formation of streamers in sedimentation, A., 1114.
- Marshall, *F. F.*, detection and determination of chestnut-wood extract in a mixture of other tanning extracts; report of a Committee of the American Leather Chemists' Association, B., 473.
- Marshall, *F. F.* See also Seltzer, *J. M.*
- Marshall, *J.* See Boot's Pure Drug Co., and Coulthard, *C. E.*
- Marshall, *K. L.* See Denny, *E. H.*
- Marshall, *L. C.* See Loeb, *L. B.*
- Marshall, *L. K.*, and Old Colony Trust Co., [cathode for] electron-discharge device, (P.), B., 995.
- Marshall, *P.*, mineral hitherto unrecognised in the phonolites of Dunedin, New Zealand, A., 189.
- Marshall, *P. G.* See Dickinson, *W. P.*
- Marshall, *W.*, treatment of fabrics or yarns composed of natural celluloses; treatment of mixed fabrics or yarns composed of natural celluloses and wool or natural silk; treatment of fabrics containing artificial silk, (P.), B., 281.
improving the properties of artificial threads and films consisting of regenerated cellulose, (P.), B., 1148.
- Marshall, *W. E., jun.* See Herty, *C. H., jun.*
- Marshall, *W. H.*, heating of solutions and emulsions by electrostatic fields, A., 1248.
- Marson, *C. B.*, blending [of coals for coke manufacture], B., 646.
- Marsson, *T.* See Rona, *P.*
- Martens, *F. F.*, new form of Jamin's interference refractometer, A., 883.
- Martens, *O.*, production of feeding-stuff, (P.), B., 301.
- Marti, *J.* See Kohlshütter, *V.*
- Marticorena, *A.* See Zumeta, *J. M.*
- Martin, *A.*, and Johnston, *J., jun.*, production of fertiliser compound, (P.), B., 163.
- Martin, *A. E.*, determination of the variation with pressure of the force between two plates at different temperatures at low pressures, with a view to the determination of molecular mean free paths, A., 278.
- Martin, *A. R.*, electrical conductivities of solutions of tetrathylammonium iodide in benzonitrile, A., 545.
effect of a permanent electrical dipole on the internal latent heat of vaporisation of a liquid, A., 678.
water softening: certain properties of some base-exchange materials, B., 1093.
- Martin, *E.*, determination of alcohol [in wines, etc.], B., 879.
- Martin, *Erich*, absorptive power of pure iron and its alloying elements for hydrogen and nitrogen, B., 194.
- Martin, *Ernest*, barium aluminates, B., 555.
- Martin, *E. A.* See Clow, *B.*
- Martin, *F.*, and Pien, *J.*, determination of small quantities of arsenic, A., 1144.
- Martin, *F. J.*, and Doynae, *H. C.*, laterite and lateritic soil in Sierra Leone. II., B., 629.
- Martin, *F. M.* See Clavera, *J. M.*
- Martin, *G.* See Thiollot, *R.*
- Martin, *Geoffrey*, thermal inefficiency of the cement rotary kiln, B., 906.
- Martin, *H.*, hydrolysis of sulphur in relation to its fungicidal activity, B., 632.
chemistry and certain problems of applied mycology, B., 633.
- Martin, *H.* See also Goodwin, *W.*, and Harwood, *S. D. F.*
- Martin, *H. C.* See Carborundum Co.
- Martin, *J.* See Darmois, *E.*
- Martin, *J. B.*, and Shorey, *E. C.*, citrate-soluble phosphoric acid in colloidal phosphate, B., 386.
- Martin, *J. Holmes*. See Buckner, *G. D.*
- Martin, *John H.*, preparation of fur for shrinking and felting, (P.), B., 236, 1148.
- Martin, *J. S.* See Shank, *J. J.*
- Martin, *J. T.* See Norman, *A. G.*
- Martin, *J. W.*, preserving [in paper bags] solid carbon dioxide during storage and transportation thereof, (P.), B., 325.
- Martin, *J. W.* See also Piggott & Co., Ltd., *T.*
- Martin, *K. F.* See Hurd, *C. D.*
- Martin, *L.*, time factor in action of pancreatic enzymes, A., 817.
- Martin, *O.*, cause of ammoniacal odour of flesh of the shark, A., 1056.
- Martin, *R. H.*, and Norton Co., refractory [coatings for silicon carbide] articles and their protection, (P.), B., 614*.
- Martin, *T. J.*, magnetic concentration of certain natural and artificial manganese dioxides, B., 671.
- Martin, *T. L.*, effect of alfalfa [lucerne] and sweet clover roots and tops on the carbon dioxide evolution and nitrate accumulation of soils, B., 631.
- Martin, *W. E.*, and Berlyn, *J. A.*, stainless steel and the melting thereof, (P.), B., 1158.
- Martin, *W. H.*, Fay, *A. C.*, and Renner, *K. M.*, limits of error of the Babcock test for cream, B., 1002.
- Martin, *W. M.*, and Gortner, *R. A.*, electrokinetic potentials. V. Interfacial energy and the molecular structure of organic compounds. I. Electrokinetic potentials at cellulose-organic liquid interfaces, A., 1124.
- Martinez, *G.*, basalt from "Cucchiara Zeppara" near Guspini (Sardinia), A., 448.
- Martinez, *H.*, and Kirk, *R. H.*, machines for crushing coal, stone, and similar materials, (P.), B., 970.
- Martini, *A.*, phyto-microchemical detection of nickel, and its occurrence in plants, A., 565.
microchemical mineral analysis. IV. [Reactions of chromium, phosphoric acid, and nickel and the use of acridine in microchemical analysis], A., 882.
- Martini, *H.* See Stock, *A.*
- Martino, *G.*, physiological significance of muscle creatinophosphoric acid, A., 494.
glycolytic power of cerebral matter, A., 956.
- Martinov, *P. F.* See Losina-Losinsky, *L.*
- Martin-Sans, *E.*, general occurrence of alkaloids in *Buzaceae*, A., 1626.
- Martinson, *E. E.*, and Markova, *A. A.*, application of Van Slyke and Palmer's method for the titration of organic acids in liquids containing proteins. I. Titration of the organic acids in urine containing protein, A., 239.
adaptation of the Van Slyke-Palmer method of titration of organic acids to solutions which contain proteins, A., 1485.
- Martinson, *E. E.*, and Salaskina, *S.*, change in the content of inorganic bases of blood and urine of dogs during activity of the digestive glands, A., 242.
- Martinson, *E. E.*, and Vladimirova, *E. A.*, application of Van Slyke and Palmer's method for the titration of organic acids in liquids containing proteins. II. Direct titration of organic acids in blood, A., 1054.
- Martemianov, *A.*, Chintschin's sizing process [for paper], B., 97.
- Márton, *L.*, and Rostás, *E.*, electrolytic preparation of photo-cells and their application, A., 56.
- Martz, *E.* See Wagner, *Hans*.
- Maruno, *Y.*, halogen excretion in the liver, A., 805.
effect of various colouring matters on enzyme action. I.—III., A., 817.
- Maruyama, *T.* See Suzuki, *B.*
- Marvel, *C. S.*, and Bailey, *C. F.*, [preparation of] taurine, A., 752.
- Marvel, *C. S.*, Scott, *E. W.*, and Amstutz, *K. L.*, identification of amines. V. Derivatives of tertiary amines, A., 199.
- Marvel, *C. S.*, and Sparberg, *M. S.*, [preparation of] sodium β -bromoethanesulphonate, A., 739.

- Marvel, C. S. See also Berg, C. P., Coffman, D. P., Ford, S. G., Friedrich, M. E. P., Gillespie, H. B., Howk, B. W., Hussey, S. C., Littmann, E. R., McMahon, E., Rossander, S. S., and Windus, W.
- Marvin, G. E., deterioration and spoilage of honey in storage, B., 740.
- Marvin, G. G. [with Schumb, W. C.], sodium peroxide-carbon fusion for the decomposition of refractories, B., 374.
- Marwick, T. O., space-group of strychnine, A., 1353.
- Marx, K. See I. G. Farbenind. A.-G.
- Marx, R., manufacture of paper, pulpboard, etc., (P.), B., 944.
- Marxen, J. See Drucker, C.
- Märza, V. See Parton, C. I.
- Masa Ges.m.b.H. zur Herstellung künstlicher Oberflächen, transfer of wood grain, (P.), B., 666.
- imitating the grain of wood, etc., (P.), B., 908.
- reproducing grain of wood [on printing plates], (P.), B., 908.
- [photographically] imitating [the grain in] marble, etc., (P.), B., 949.
- [photographic] production of printing plates in imitation of the fibre in wood, (P.), B., 949.
- printing on surfaces coated with nitrocellulose lacquer; surface ornamentation of metal, wood, etc., particularly for imparting thereto the appearance of rare woods, (P.), B., 1121.
- Masaki, K. See Bonner, W. D.
- Masami, O., waxy substance of cocoon silk fibres, A., 1610.
- Masamune, H., mechanism of effect of alcohol on sugar metabolism, A., 813.
- Mascarelli, L., and Gatti, D., diphenyl and its derivatives. V., A., 337*.
- Mascarelli, L., and Gatti, D. [with Jona, E., and Capello, C. F.], diphenyl and its derivatives. V., A., 205.
- Mascarelli, L., and Gatti, D. [with Jona, E., and Leoncini, V.], diphenyl and its derivatives. VI., A., 464.
- Mascart, G. M. F. F., carbonisation of agglomerates of non-bituminous coals, (P.), B., 891.
- Maschinenbau-Anstalt Humboldt, crystallising vessel, (P.), B., 223.
- tube mills, (P.), B., 798.
- Maschinenbau-Anstalt Humboldt. See also Jaedel, W.
- Maschinenfabrik Esslingen, and Stoffels, J., processes and apparatus for liquefying solid carbon dioxide, (P.), B., 819.
- Maschinenfabrik Grevenbroich, manufacture of slaked lime free from impurities, (P.), B., 327.
- Maschinenfabrik Imperial Ges.m.b.H., and Schwieter, A., drum dryer, (P.), B., 1096.
- Maschinen- & Werkzeugfabrik Kabel Nogel & Schemmann Akt.-Ges. See Behrens, H.
- Maschowitz, A. See Rabinovitsch, M.
- Masché, M., and Bouchara, E., influence of formaldehyde on the precipitation of the proteins of milk, A., 1466.
- Masché, M., and Herbin, M., influence of formaldehyde on the precipitation of nitrogenous substances of serum by trichloroacetic acid, A., 103.
- precipitation of nitrogenous substances of serum in presence of formaldehyde, A., 943.
- influence of formaldehyde on the precipitation of serum-proteins, A., 1462.
- Mase, R. P., liquid and gas contact apparatus, (P.), B., 1136.
- Mashino, M., purification of soya-bean protein. II. Influence of water on purification by lower alcohols, A., 384.
- purification of soya-bean protein. III. Influence of acid or alkali on purification by dilute lower alcohols, A., 826.
- soya-bean oil extraction. I., B., 291.
- Masing, G., law of linear crystal growth, A., 402.
- age-hardening heavy-metal alloys, B., 562.
- Masing, G., Dahl, O., and Siemens & Halske Akt.-Ges., improving the properties of iron-beryllium alloys, (P.), B., 334*.
- Masing, G., and Metal & Thermit Corporation, deoxidation of molten metals or alloys, (P.), B., 995*.
- Masing, G., and Overlach, H., diffusion in cast bismuth-antimony alloys, B., 1157.
- Maske, F. See Fredenhagen, K.
- Maskell, E. J., and Mason, T. G., transport of nitrogenous substances in the cotton plant. II. Concentration gradients, A., 260.
- transport of nitrogenous substances in the cotton plant. III. Relation between longitudinal movement and concentration gradients in the bark, A., 507.
- transport of nitrogenous substances in the cotton plant. IV. Lability of the nitrogen compounds of the bark, A., 965.
- Maskell, E. J., and Mason, T. G., transport of nitrogenous substances in the cotton plant. V. Movement to the boll, A., 1323.
- Maslenikov, B., determination of oil in vegetable materials, B., 1163.
- Maslowski, M. See Htasko, M.
- Mason, A. J., washing of granular material, (P.), B., 399.
- Mason, O. W., microscopical methods in analytical chemistry, A., 1142.
- Mason, C. W. See also Audrieth, L. F., and Smith, G. B. L.
- Mason, F. A., preparation of malic anhydride, A., 743.
- Mason, F. A. See also Gokhlé, B., and Jambuserwala, G. B.
- Mason, H. L., glutathione. II. Determination of reduced glutathione in tissues, A., 803.
- Mason, H. L. See also Kendall, E. C.
- Mason, R. B. See Edwards, J. D.
- Mason, S. R. See Electrical Research Products, Inc.
- Mason, T. G. See Maskell, E. J.
- Masriera, M., reaction for formic acid, A., 1405.
- Masriera, M., and Par, A., neutralisation and refining of Spanish olive oils, B., 871.
- Massatsch, C., action of water on aluminium vessels, and the effect of aluminium compounds on the organism, B., 244.
- Massatsch, C., and Matro Ges.m.b.H., manufacture of dry yeast for medical and pharmaceutical purposes, (P.), B., 83*.
- Massatsch, C., and Steudel, H., biology of aluminium, A., 946.
- Massengale, O. N., and Nussmeier, N., action of irradiated ergosterol in the chicken. I. Effect on calcium and inorganic phosphorus of the blood-serum. II. Prevention of leg weakness, A., 1071.
- Massengale, O. N. See also Bills, C. E.
- Massera, V., oil of white pine seeds from Cadore, B., 675.
- Massey, H. S. W., scattering of fast electrons and nuclear magnetic moments, A., 974.
- anomalous scattering of α -particles from the quantum mechanical point of view, A., 976.
- theory of extraction of electrons from metals by positive ions and metastable atoms, A., 1231.
- Massin, M., method and apparatus [knife] for separating skin from flesh or depilating skins, (P.), B., 294.
- Massink, A., influence of chlorine treatment on acidity of water, B., 688.
- Massobrio, E., and Michailov, M., lactic acid content of blood in hepatic disease, A., 1310.
- Masson, (Sir) D. O., solute molecular volumes in relation to solvation and ionisation, A., 31.
- Masson, I. See Tanner, C. C.
- Masterman, C. A., combustion, wind, and flue equipment, B., 227.
- Masterman, C. A., and Gas Light & Coke Co., [absorption] refrigerating systems, (P.), B., 87.
- Masterman, C. A. See also Gas Light & Coke Co.
- Masuda, R., deposition of calcium in the skin, A., 1061.
- Masuda, S., and Murakami, J., viscose. XXXIV. Effect of chlorination on the properties of cellulose, B., 899.
- Masuda, S. See also Iwasaki, S., and Kita, G.
- Masumoto, M. See Komatsu, S.
- Matakas, F. See Zondek, S. G.
- Matano, C. See Tanaka, S.
- "Mateco" Société pour la Construction et l'Exploitation du Matériel Colonial au Gaz Pauvre, Société Anonyme, and Delvaux, M., removal of dust from gases, and more particularly producer gas, a reheating device, and a steam-mixing device for the combustion air, (P.), B., 492.
- Mather, J., metallurgy of duralumin, B., 424.
- Mathers, F. C., and Bradbury, G. M., oxidation of calcium tellurite by heating and the preparation of telluric acid from the calcium tellurate, A., 48.
- Mathers, F. C., and Graham, F. V., oxidation of selenium dioxide and of tellurium dioxide with lead dioxide, A., 48.
- Mathers, F. C. See also Alter, C. M.
- Mathers, W. H., and Dudgeon, Inc., R., hydraulic filter press, (P.), B., 694.
- Mathes, W. See Ziegler, K.
- Mathesius, H., determination of small amounts of titanium in alloy steels, B., 330.
- Mathesius, H. See also Mathesius, W.
- Mathesius, W., and Mathesius, H., production of titanium steel, (P.), B., 720.
- producing a titanium or ferrotitanium regulus, (P.), B., 994.
- Matheson, D. H., thermostat for temperatures below 20°, A., 1550.

- Matheson, H. W. See Canadian Electro Products Co., Ltd.
- Mathews, J. A., recent developments in corrosion-resistant and heat-resistant steels, B., 104.
- Mathews, S., and Newton, C., vitamins, B., 392.
- Mathey, S. See Meyer, A.
- Mathieson Alkali Works, manufacture of calcium hypochlorite, (P.), B., 58*.
- production of paper, (P.), B., 368, 553.
- Mathieson Alkali Works, and MacMullin, R. B., production of hypochlorite compositions, (P.), B., 711.
- Mathieson Alkali Works, MacMullin, R. B., and Taylor, M. C., production of hypochlorite compositions, (P.), B., 711.
- Mathieson Alkali Works. See also Evans, G. S., Low, F. S., McMullin, B. B., and Pattillo, D. K.
- Mathieu, M., X-ray study of some lead salts, A., 138.
- Mathieu, M. See also Desmaroux.
- Mathiowetz, H. See Waldmann, H.
- Mathis, H., protein sulphuric acid ester from the mucous membrane of the [pig's] stomach, A., 945.
- Mathis, H. See also Fränkel, S.
- Mathur, F. C. See Le Fèvre, R. J. W.
- Mathur, K. N. See Bhatnagar, S. S.
- Mathur, R. N. See Bhatnagar, S. S.
- Matignon, C., production of rational fertilisers based on phosphoric acid, B., 114.
- future position of coal and carbon [in other forms] as raw materials of the chemical industry, B., 540.
- Matlock, C., and Monroe-Louisiana Carbon Co., production of carbon black, (P.), B., 273.
- Matolossy, G., determination of the saponin content of indigenous *Gypsophila paniculata*, L., A., 1325.
- Matossil, F., polarisation of Raman radiation and crystal structure, A., 1236.
- Matossi, F. See also Schaefer, C.
- Matreev, N. See Vassiliev, A.
- Matro Ges.m.b.H., production of extracts for direct application as medicaments and for increasing the vitamin content of foodstuffs, medicaments, etc., (P.), B., 686.
- Matro Ges.m.b.H. See also Massatsch, C.
- Matschenz, G. See Brigi, P.
- Matsubara, A., self-electrification of sulphide ore bodies, A., 1016.
- Matsubara, M., secretion of the small intestine. I. Secretion in physiological and febrile conditions, A., 1057.
- Matsubashi, T. See Kato, Y.
- Matsui, M., chamber [sulphuric acid] process. XIX. Equilibrium in the gaseous phase, B., 321.
- chamber [sulphuric acid] process. XX. Empirical formula and nomogram for composition of nitrous vitriol, B., 903.
- Matsui, M., Oguri, Suteru, Kambara, S., and Kato, Kenzi, determination of transition point by the vapour-pressure method, A., 293.
- Matsui, M., and Sakamaki, T., chamber [sulphuric acid] process. XVIII. Total [heat balance] and differential heat balance [of each section] of a Glover tower, B., 238.
- Matsuki, G. See Konishi, K.
- Matsumori, T., distribution of glycogen in the ox heart, A., 803.
- Matsumori, T., and Okuda, M., glutathione content of muscles and other organs and tissues, especially of rabbits, A., 1464.
- Matsumoto, K., and Kise, Y., change of buffer action on saccharisation of rice malt, B., 527.
- Matsumoto, Z., thermometers, (P.), B., 1136.
- Matsumura, K., Skraup reaction with 4-aminoresorcinol dimethyl ether, A., 1297.
- formation of a phenazine compound from a diphenyl ether derivative, A., 1297.
- preparation of benzeneazo-derivatives of 8-hydroxyquinoline, A., 1594.
- Skraup reaction with azo-compounds, A., 1595.
- Matsumura, S., amylase in the extracts of the salivary glands of the silk-worm larva (*Bombyx*), A., 1202.
- enzyme actions of larvae of the silk-worm, *Bombyx mori*, A., 1619.
- Matsumura, S., Kakinuma, G., Kawashima, K., Ianikawa, K., Ochiai, S., Miyata, R., Fujisaki, K., Kanao, R., Noguchi, K., Aoki, K., Sato, Takeshi, Ito, K., and Suzuki, M., *Bacillus beriberi*, A., 959.
- Matsunaga, Y., nickel-chromium system, A., 680.
- Matsunaga, Y. See also Sekito, S.
- Matsuno, T. See Araki, T.
- Matsuo, G., Oguri, Seizo, Takeda, S., and Urakawa, B., viscosity of solutions of cobalt chloride containing hydrochloric acid, A., 689.
- Matsuo, I., milk. IV. Effect of heating on the constituents of milk, B., 528.
- Matsuoka, T., vitamin-C. I. Occurrence of vitamin-C in celery. II. Germination of seeds and vitamin-C. III. Germination of seeds and vitamin-C. A., 822.
- Matsushima, H. See Ishii, R.
- Matsuyama, M., and Nakamura, H., determination of the action of pepsin, A., 1620.
- Matsuyama, S. See Nagai, S.
- Matsuyama, T. See Kami, Y.
- Matsuyama, Y. See Honda, K.
- Mattausch, J. See Raudnitz, H.
- Matthaes, W., sensitive method for the determination of the m. p. of gelatin jellies, B., 206.
- Matthaopoulos, G. T., and Zaganiaris, J. N., acetonil sulphide, A., 61.
- Matthel, A., influence of surface configuration, climate, and vegetation on the range of soil types in Chile, B., 923.
- Matthes, H., use of Kalium sulfoguaiacolicum D.A.B. VI as reagent for the detection of methyl alcohol in spirituous preparations, B., 264.
- Matthes, H., and Schütz, P., assay and determination of composition of theobromino-sodium salicylate, B., 216.
- Matthes, H., and Wallrabe, G., waters rich in sodium hydrogen carbonate and especially in iodine in East Prussia, A., 386.
- Matthew, J. A. See Linen Industry Res. Assoc.
- Matthews, D. H. See Turner, J. F.
- Matthews & Yates, Ltd., and Stott, O., dust and similar separators, (P.), B., 270.
- Matthews & Yates, Ltd. See also Stott, O.
- Matthias, E. See Giordani, F.
- Matthies, O., Dieterle, W., Wendt, B., and Agfa Ansco Corporation, manufacture of sensitised element and silver halide emulsion therefor, (P.), B., 218*.
- Matthies, O., Wendt, B., and Agfa Ansco Corporation, manufacture of light-sensitive silver halide emulsions, (P.), B., 883*.
- Matthijsen, H. L., Fischer's fall viscosimeter, B., 222.
- analysis of white metals and solder, B., 867.
- Matti, J., and Augmentine Holding Société Anonyme, manufacture of bread, (P.), B., 740.
- Mattice, M. R., coloured glass standards [in blood analysis], A., 1201.
- Mattice, M. R. See also Lowenberg, C.
- Mattick, A. T. R., phenols in sterilised milk, B., 214.
- Mattick, C. See Lay, E.
- Mattick, W. L., and Buchwald, K. W., blood-cholesterol in cancer. IV., A., 241.
- Mattill, H. A., and Crawford, B., autoxidation of corn [maize] oil as related to its unsaponifiable constituents, B., 518.
- Mattill, H. A., and Smith, H. G., nutritive value of cereal breakfast foods. III. Rate of digestion and absorption as determined by experiments on rats, A., 1060.
- Mattison, I. H. See Ekeley, J. B.
- Mattox, W. See Wood, A. E.
- Mattox, W. J. See Bost, R. W.
- Mattson, S., laws of soil colloidal behaviour. II. Cataphoresis, flocculation, and dispersion, B., 72.
- Matuki, Y. See Nishizawa, K.
- Matusehek Metallindustrie G. Radtke. See Radtke, G.
- Matusevitch, V. F. See Shukov, I. I.
- Matuyama, Y., volume change of manganese during solidification, A., 530.
- density of molten metals and alloys, A., 530.
- Matuyama, Y. See also Honda, K.
- Matveev, A. P. See Lazarev, N. V.
- Matveev, G. P. See Gerasimov, A. F.
- Matz, P. B., colorimetric determination of proteins of the cerebrospinal fluid, A., 1308.
- Matzko, S. N., vitamin-D content of fats of certain fish, A., 256.
- Matzkov, F. F., Kokin, A. J., Kokina, S. I., Nenko, P., Vetukhova, A. A., and Fanskina, B. A., [culture of] sugar beet, B., 387.
- Maude, A. H., and Rubber Service Laboratories Co., [croton]-aldehyde manufacture, (P.), B., 754.
- Maude, A. H. See also Hand, C. N.
- Mauersberger, E. A., manufacture of bismuth salts, B., 659.
- Maulik, S. N. See Ray, P. R.
- Maume, L. See Lagatu, H.

- Maurel, H. F., processes of and ovens for carbonising coal, (P.), B., 448.
- Maurel, H. F., and Maurel Investment Corporation, manufacture of fuel briquettes, (P.), B., 1141*.
- Maurel Investment Corporation. See Maurel, H. F.
- Maurer, A. J., [machine for] drying of cellulosic films, (P.), B., 610.
- Maurer, E., and Ducrue, H., iodine as a biogenic element. XIX. Iodine content of the normal animal organism. XX. Influence of oral administration of small amounts of inorganic iodine on the iodine content of the animal organism, A., 363.
- Maurer, Ed., and Riedrich, G., presumed heterogeneity of martensite, B., 1155.
- Maurer, K., conversion of simple sugars into derivatives of 4-pyrone and preparation of further unsaturated anhydrosugars. III., A., 326.
- Maurer, K., and Müller, Artur, unsaturated anhydrosugars. IV. 2-Hydroxygalactal and preparation of kojic acid [5-hydroxy-2-hydroxymethyl-4-pyrone] from galactose, A., 1412.
- Mauriac, P. See Aubel, E.
- Maurin. See Aversenq.
- Maurmann, G., red-earth-like soils on limestones in central Germany, A., 1398.
- Maus, W. K. See Marsh, F. E.
- Mauss, W. See Mannich, C.
- Mauche, G. See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Mauthner, F., γ -resorecylic acid [2:6-dihydroxybenzoic acid]. II., A., 599.
- syntheses of *d*-glucoacetyosyringone and *d*-glucosyringaldehyde, A., 608.
- Maverick, G., compressibility of gases at 0° and below 1 atm., and their divergence from Avogadro's law. V. Nitrogen, ammonia, and hydrogen sulphide, A., 535.
- Maverick, G. See also Batuecas, T.
- Mawson, (Sir) D., South Australian algal limestones in process of formation, A., 315.
- potassium nitrate in Central Australia, A., 570.
- treatment of sulphur-containing mineral complexes such as alunite, jarosite, copiapite, [earphosiderite], (P.), B., 861.
- Maxim, M., *d*-mannose and *d*-arabinose in the carbohydrate fraction of the tubercle bacillus and of tuberculin, A., 1219.
- Maxim, N., new class of coloured hydrocarbons, A., 334, 594.
- mechanism of the action of the Grignard reagent on *N*-disubstituted crotonamides, A., 594.
- action of organomagnesium compounds on furfurylideneacetophenone; new furan ketones, A., 1442.
- preparation of ketones containing the furan nucleus, A., 1442.
- Maxim, N., and Ioanid, N., action of mixed organomagnesium compounds on *N*-substituted crotonanilides, A., 1426.
- Maxted, E. B., catalytic reactions at high pressures, A., 868.
- heats of adsorption and isotherms in the system platinum-hydrogen, A., 1363.
- Maxwell, G. B., and Wheeler, R. V., flame characteristics of "pinking" and "non-pinking" fuels, B., 357*.
- influence of cylinder design on pinking, B., 648.
- Maxwell, L. C., and Bischoff, F., reaction of lead with the constituents of erythrocytes, A., 234.
- reaction of the fluid of rat sarcoma 10, A., 1468.
- Maxwell, L. R., cosmic radiation and radioactivity, A., 517.
- comet-tail bands of carbon monoxide, A., 1498.
- Maxwell, R. T. See Upson, F. W.
- Maxwell, R. W., and Adams, R., possible isomerism of analogues of resolvable diphenyl compounds. VII., A., 1180.
- Maxwell, W. B., copper concentration as applied to Canadian ores, B., 423.
- May, C., hydrogen-ion concentration and titratable acidity of tomatoes and their resistance to *Fusarium* wilt, A., 1224.
- May, G. See Hartmann, H.
- May, O. E., Herrick, H. T., Moyer, A. J., and Hellbach, R., semi-plant-scale production of gluconic acid by mould fermentation, B., 118.
- May, O. E., Weisberg, S. M., and Herrick, H. T., physical constants of *d*-gluconic acid and several of its salts, A., 194.
- May, R., microchemical studies on the nervous system. III. Water and phosphorus compounds of the nerve during degeneration, A., 1465.
- May, R. See also Ditz, H.
- May, R. M., water and phosphorus compounds of nerve on degeneration, A., 946.
- May & Baker, Ltd. See Barber, H. J., and Newbery, G.
- Maydel, I., general formulæ for calculating the at. or mol. heat and sp. heat of elements and their compounds in the solid state, A., 403.
- Mayeda, Y. See Kameyama, N.
- Mayen, H. See Merck, E.
- Mayer. See Keunecke, E.
- Mayer, A., and Nichita, G., water emitted by evaporation and its bearing on respiratory exchanges in homeotherms; the ratio water:oxygen, A., 101.
- Mayer, A. W. J., principles of distillation in heated pipes in the petroleum industry, B., 90.
- Mayer, B. See Soc. of Chem. Ind. in Basle.
- Mayer, C. F. See Barker, E. F.
- Mayer, F., Fleckenstein, E., and Günther, H., benzanthrone series, A., 1042.
- Mayer, F., and Günther, H., 2:7-dimethylantraquinone, A., 1042.
- Mayer, F. See also Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Mayer, F. K. See Kästner, F.
- Mayer, G., lattice constant of α -iron, A., 140.
- Mayer, Hermann. See Bornstein, A.
- Mayer, Hugo. See Abderhalden, E.
- Mayer, J. E., measurement [of the thermal ionic dissociation of alkali iodides and calculation therefrom] of the electron affinity of iodine, A., 836.
- Mayer, (Mlle.) N., potential of solutions of carbohydrates, A., 297*.
- Mayer, W. B., and Finkelstein, H., amylase in normal urine, A., 239.
- Mayers, M. R., Rivkin, H., and Krasnow, F., effect of carbon monoxide, illuminating gas, and automobile exhaust gas on the fragility of red blood-cells, A., 1606.
- Maynard, L. A., and McKay, C. M., influence of a low-fat diet on fat metabolism during lactation, A., 636.
- Maynes, E. C. See Maynes, H. F.
- Maynes, H. F., Maynes, E. C., and Zebulske, E. A., coating [small objects with] finely-divided and similar [edible] material, (P.), B., 1121.
- Mayor, J., [apparatus for] preservation of fruits, vegetables, and other foods, (P.), B., 1090.
- Mayor, J. P. P., and Société Alsacienne de Produits Chimiques, manufacture of [dehydrogenating] catalysts [hydrated copper oxide], (P.), B., 102.
- Mayr, C., and Burger, G., potentiometric titrations using mercurous nitrate and sodium oxalate as titrating solutions, A., 1264.
- Mayr, E., and Wurster, K., milk of cows in nymphomania, A., 1611.
- Mayr, K. A. See Siemens-Schuckertwerke A.-G.
- Mayzner, M. See Kon, S. K.
- Mazetti, G., detergent alcoholic soap or cream, (P.), B., 826.
- Mazuda, S. See Kita, G.
- Mazumder, K. C., absorption of X-rays by lithium, A., 1333.
- Mazume, T., and Kino, K., fatty acid derivatives. II. Solid derivative of phenylstearic acid, A., 340.
- Mazur, J., change of the dielectric constant of ethyl ether with temperature, A., 1501.
- Mazur, J. See also Wolffe, M.
- Mazza, E., separation of mixed gaseous components, (P.), B., 493.
- Mazzetti, C., national [Italian] lignites: fusibility of the ash, B., 354.
- purification of illuminating gas by the dry method, B., 593.
- Mazzooco, P., iodine in the air, dew, soil, and water in Salta [Argentina]; iodine in food in Salta; iodine metabolism and prophylaxis of goitre in Salta, A., 1015.
- Mazzooco, P., and Aranda, C. A., iodine content of the thyroid of sheep in Salta and at the coast, A., 1015.
- Mazzucchelli, A., element classification of Corbino, A., 1341.
- Mead Pump & Paper Co., coating of paper, (P.), B., 944.
- Meakin, E. T., press for the extraction of liquids, (P.), B., 3.
- Mears, B., and Pine, P. R., use of tantalum as cathode for the electro-deposition of copper, A., 1134.
- Mebane, W. M. See Dobbins, J. T.
- Mechanical Rubber Co. See Gibbons, W. A.
- Mechanische Weberei Sessmar Sondermann & Co. See Sondermann & Co.
- Mecke, P., formation of two different calcium sulphato-aluminates from gypsum in cement, B., 146.

- Mecke, R., dissociation work of oxygen, A., 124.
absorption spectra of water vapour and ammonia, A., 132.
interpretation of simple chemical reactions, A., 668.
heat of dissociation of oxygen and of the C-H linking, A., 702.
rotation oscillation spectrum of acetylene. III. Characteristic frequencies of simple symmetrical molecules, A., 1236.
aims and results of band spectra research, A., 1343.
structure of acetylene derived from spectroscopic investigations, A., 1343.
- Mecke, R., and Badger, R. M., absorption spectrum of ammonia gas in the near infra-red, A., 13.
- Mecke, R., and Wildt, R., spectrum of the solar corona, A., 266.
- Mecke, R., and Wurm, K., at. wt. of the oxygen isotope O¹⁸, A., 515.
- Mecke, R. See also Badger, R. M., Childs, W. H. J., Hedfeld, K., and Heller, G.
- Mecklenburg, W., theory of gas masks. II., B., 884.
- Médard, L., cellulose and silicates, A., 1275.
- Medrano, L. See Riffé, A.
- Medvedchuk, P., laboratory filter press, A., 1550.
quality of fat from pigs, B., 109.
- Meehan, A. See Campa, A. F.
- Meehan, P. A., and American Dresser Tunnel Kilns, Inc., tunnel kiln, (P.), B., 768*, 948*.
- Meek, S. St. P., combustible [compositions for tracer projectiles], (P.), B., 1048.
- Meeker, D. See Hamilton, B.
- Meelfabrieken der Nederlandsche Bakkerij. See Naaml. Vennoots. Meelfabr. der Nederl. Bakkerij.
- Meer, F. von. See Remy, T.
- Meerseheid-Hüllessem, von, apparatus for the 75° stability test for smokeless powders and nitrocellulose, B., 641.
- Meerwein, H., and Bersin, T., metal alkoxides and ortho-acid esters. I. Alkoxy-acids and their salts, A., 59.
- Meesmaecker, R., colour reaction for ergosterol; differentiation of ergosterol and irradiated ergosterol, A., 477.
- Meesmaecker, R., and Boivin, J., determination of allylthiocarbamide in black mustard, B., 741.
- Meesmaecker, R., and Griffon, H., mechanism of Liebermann-Burchard reaction; application to differentiation of sterols of animal or vegetable origin, A., 1179.
- Megee, C. R., and Lipscomb, R. W., loss of residual chlorates from soil, B., 1082.
- Meggers, W. F., and De Bruin, T. L., arc spectrum of arsenic, A., 125.
- Meggers, W. F., De Bruin, T. L., and Humphreys, C. J., first spectrum of xenon, A., 125.
- Meggers, W. F., and Scribner, B. F., regularities in the arc spectrum of hafnium (Hf I), A., 389.
regularities in the spectra of lutecium, A., 1076.
- Meggers, W. F. See also Langer, R. M.
- Megson, N. J. L., and Drummond, A. A., formaldehyde condensations with phenol and its homologues, B., 600.
- Meharg, V. E. See Weith, A. J.
- Méhes, G. See Leyko, E.
- Mehes, I. See Issekutz, B. von.
- Mehl, J., flux-coated [iron] electrodes for electric welding, (P.), B., 774.
- Mehl, P. F., absolute cohesion in metals; disruptive negative pressures and chemical disruptive volumes, A., 529.
- Mehler, L. See Doerincel, F.
- Mehlitz, A., action of pectase. I. Optimal conditions for pectase coagulation, A., 957.
- Mehner, H. See Mark, H.
- Mehr, J. M. ver, mixing machines [for concrete], (P.), B., 1112.
- Mehring, A. L., factors affecting the drillability of fertilisers, B., 115.
- Mehta, T. N. See Farmer, E. H.
- Meichsner, A. See Roth, W. A.
- Meidert, F. See I. G. Farbenind. A.-G.
- Meier, E., shaft kiln for calcining cement or lime, (P.), B., 420.
- Meier, F. W. See Bucherer, H. T.
- Meier, H. See Curtius, T., and Klumpp, E.
- Meier, H. F. See Skau, E. L.
- Meier, P. See Thielepape, E.
- Meigs, Bassett & Slaughter, Inc. See Bassett, H. P.
- Meijer, C. See Louwes, S. L.
- Meijer, J. W., objective physical method for the determination of sugars in solution, A., 581.
- Meiler, J. G., and Noyes, W. A., jun., photochemical studies. X. Electronic and photochemical decompositions of potassium chlorate, A., 433.
- Meillère, M. G., determination of chloral in chloral syrup, B., 393.
- Meinel, K. See Schmidt, Erich.
- Meinert, R. M. See Hurd, C. D.
- Meisel, K., crystal structure of niobium, A., 983.
- Meisel, K. See also Klemm, W.
- Meisenbach, Riffarth & Co., Akt.-Ges., production of screen-positives for use in making photo-mechanical printing surfaces, (P.), B., 350.
production of negative or positive printing plates, (P.), B., 841.
- Meisenheimer, J., and Dorner, O., associations in solution, A., 1519.
- Meisenheimer, J., and Link, J., substitution and addition. III. Displacement [of the double linking] in the allyl group, A., 769.
- Meiser, W. See I. G. Farbenind. A.-G.
- Meissner, A., determination of structure from characteristic acoustic oscillations, A., 1502.
what is an insulator? A., 1507.
- Meissner, G., and Hesse, E., chemotherapy of tuberculosis, II., A., 376.
- Meissner, H., test for tin, A., 882.
- Meissner, K. L., manufacturing chemically pure aluminium by electrolysis, (P.), B., 916*.
artificial ageing of duralumin and superduralumin, B., 991.
- Meissner, T. See Gen. Aniline Works, Inc.
- Meissner, W., measurements with the aid of liquid helium. V. Superconductivity of cupric sulphide, A., 22.
measurements with the aid of liquid helium. VI. Transition curve for the superconductivity of titanium, A., 531.
measurements with the aid of liquid helium. VII. Curves of transition to superconductivity for tantalum and thorium, A., 675.
measurements with the aid of liquid helium. X., A., 1354.
- Meissner, W., and Franz, H., superconductivity of carbides and nitrides, A., 846.
measurements with the aid of liquid helium. VIII. Superconductivity of niobium, A., 1102.
measurements with the aid of liquid helium. IX. Superconductivity of carbides and nitrides, A., 1507.
- Meissner, W., and Scheffers, H., measurements with the aid of liquid helium. IV., A., 142.
change of electrical conductivity in strong magnetic fields, A., 281.
electrical resistance of gold in magnetic fields at low temperatures, A., 985.
- Meissner, W. See also Franz, H.
- Meitner, (Frl.) L., and Hupfeld, H. H., confirmation of the scattering formula of Klein and Nishina for short-wave γ -radiation, A., 976.
- Meitner, (Frl.) L., and Orthmann, W., absolute determination of the energy of the primary β -rays from radium-E, A., 516.
- Melamid, M., obtaining aldehyde condensation products, (P.), B., 677.
splitting up of mineral oils, (P.), B., 1141*.
- Mélasjoannidès, Z., phototoxic substance from *Hypericum crispum*, A., 1324.
- Melaven, A. D., electrolytic cell for use with the mercury cathode, A., 885.
- Melballe, T., method and means for pasteurising milk, (P.), B., 638.
- Melchior, P., Brinell hardness, elastic limit, and tensile strength of age-hardenable aluminium alloys, B., 717.
- Melchior, W. See Eoff, J. R., jun.
- Meldrum, N. U., behaviour of glutathione in yeast, A., 1477.
- Meldrum, N. U., and Dixon, M., properties of pure glutathione, A., 803.
- Melhuish, B. W. See Linnell, W. H.
- Melin, E., biological decomposition of some types of litter from North American forests, B., 632.
- Melis, B., chemical treatment of lemon residues, B., 35.
- Mellanby, E. See Harrison, S. T.
- Mellanoft, I. S. See Kemikal, Inc.
- Meller, J. W., pan grinding, B., 1049.
- Mellerborg, B. T. G. V. H. O., fertiliser containing potassium compounds, (P.), B., 297.

- Mellon, *M. G.*, colorimetric standards. II. Relation of colour to concentration for aqueous solutions of certain inorganic salts, A., 155.
changes of temperature in volumetric analysis, A., 1152.
- Mellon, *M. G.*, and Foster, *V.*, solutions for colorimetric standards. III. Colour of inorganic substances in organic and inorganic solvents, A., 871.
- Mellon, *R. R.*, Szymanowski, *W. T.*, and Hicks, *R. A.*, effect of short electric waves on diphtheria toxin independent of the heat factor, A., 1623.
- Mellor, *J. W.*, manufacture of ceramic ware, (P.), B., 420*.
manufacture of glazed non-vitreous pottery, (P.), B., 558*.
- Mellor, *J. W.*, and Ceramic Patent Holdings, Ltd., manufacture of tiles, bricks, and other pottery ware, (P.), B., 327.
- Mellor, *J. W.* See also Moore, *B.*
- Melnikov, *N. N.* See Nekrassov, *V. V.*
- Meloche, *C. C.*, and Clark, *P. V.*, [preparation and properties of] caesium bismuth iodide, A., 556.
- Meloche, *V. W.* See Hurd, *L. C.*
- Melon, *J.*, two minerals from the Belgian Congo. I. Non-pyroelectric tourmaline with special facies. II. Colourless untwinned chrysoberyl, A., 1551.
- Mélon, *L.*, influence of a diet rich in cystine on the glutathione content of the tissue, A., 1471.
- Meloy, *G. S.*, free [fatty] acid important in cotton-seed value index, B., 466.
- Melrose, *W. B.*, and Melrose-Drover, Ltd., manufacture of a spirit beverage [apple gin], (P.), B., 836.
- Melrose-Drover, Ltd. See Melrose, *W. B.*
- Mels, *W. H. van.* See Backer, *H. J.*
- Melville, *P.* See Samiran, *D.*
- Melzer, *W.*, some sources of error in the determination of the b. p. or of the boiling limits of commercial benzols by the method of Krämer and Spilker, B., 1054.
- Melzer, *W.* See also Metallbank & Metallurg. Ges. A.-G.
- Memminger, *C. G.*, Waggaman, *W. H.*, and Whitney, *W. T.*, calcination or enrichment of phosphate rock, B., 658.
- McNalda, *F. A.*, quantitative investigation of the Schotten-Baumann reaction, A., 1553.
- Mendel, *L. B.* See Reed, *L. L.*, and Yamaguchi, *F.*
- Mendell, *F. H.* See Brown, *P. E.*
- Mendelssohn, *K.* See Simon, *F.*
- Mendoza, *M.* See Brit. Dyestuffs Corp., Ltd.
- Mendrzyk, *H.* See Frank, *G. von.*
- Mene, *P.*, electric annealing or similar furnace, (P.), B., 566.
- Meneghini, *D.*, primary tars obtained with the "Italian system" furnace, B., 89.
- Mengdehl, *H.* See Pirschle, *K.*
- Mengele, *H.* See Schulz, *G.*
- Menke, *H.* See Debye, *P.*
- Menke, *J. B.*, nitration of ethyl malonate, A., 578.
reduction with acetic anhydride. II., A., 874.
- Menne, *F.*, and Hoevel, *H. F.*, furnace [for treatment of scrap metal, etc.], (P.), B., 288.
- Mennicke, *U.*, width of spectral lines excited by electron collision, A., 1225.
- Menon, *K. N.*, Perkin, *W. H., jun.*, and Robinson, *R.*, strychnine and brucine. X. Degradation of dinitrostrycholcarboxylic acid: its recognition as a derivative of quinoline and consequent modifications of the constitutional formulae for the *Strychnos* bases proposed in VII., A., 795.
- Menough, *P. S.*, properties of corrosion-resisting alloys, B., 463.
- Menschick, *W.* See Fromherz, *H.*, and Page, *I. H.*
- Menschutkin, *B. N.*, and Wolff, *M. B.*, transformation of a cyclohexane into a benzene ring, A., 900.
- Menten, *M. L.*, and King, *C. G.*, toxin produced by *B. paratyphosus-B* (Aertrycke type), A., 1623.
- Menten, *M. L.*, and Kipp, *H. A.*, changes in blood-dextrose and -inorganic phosphates after intravenous injection of paratyphoid-B filtrate into depancreatised dogs, A., 1623.
- Mentzel, *A.*, hydrogenation of coal, (P.), B., 1138.
- Menz, *H.*, Steffen, *W.*, and Jaaks-Müncheberg, *E.*, detergent composition of oils, (P.), B., 826.
motor fuel, (P.), B., 894.
- Menz, *H.* See also Chemie & Technik J.M.S., Ges.m.b.H.
- Menzel, *H.* [with Brückner, *A.*, and Schulz, *H.*], magnesium carbonates. II. Normal magnesium carbonate, A., 718.
- Menzel, *H.*, and Brückner, *A.*, magnesium carbonates. I. Basic magnesium carbonates, A., 435.
- Menzel, *W.* See Ruff, *O.*
- Menzer, *G.*, crystal structure of cryolite, A., 140.
crystal lattice of eulytine, $\text{Bi}_4\text{Si}_3\text{O}_{12}$, A., 1099.
lattice constants of ammonium cryolite, A., 1351.
- Menzies, *A. C.*, plane-polarisation of the Raman spectra and on Raman lines scattered from coarsely powdered crystals, A., 15.
- Menzies, *A. W. C.*, contamination by dust particles and intensive desiccation, A., 543.
- Menzies, *A. W. C.* See also West, *W. A.*, and Siekman, *D. V.*
- Menzies, *R. C.*, application of thallium compounds in organic chemistry. V. Thallous ethoxide and dimethylthallium ethoxide, A., 1171.
- Menzies, *W. C.* See Blatch, *F. H.*
- Meppen, *B.* See Franck, *H. H.*
- Mercier, *F.*, sparteine camphorsulphonate, a derivative of camphor and sparteine soluble in water, A., 1195.
- Mercier, *F.*, and Régnier, *J.*, *l*-cocaine and *d*- ψ -cocaine; toxicity towards and destructibility by the animal organism, A., 111.
- Mercier, *J.*, depolymerisation of hydrocarbons, (P.), B., 752.
- Mercier, *P.*, measurements of suspensions and deposits, A., 1516.
- Merck, *E.*, modern methods of manufacturing absolute alcohol, B., 855.
- Merck, *E.*, Mayen, *H.*, and Wolfes, *O.*, production of thiocarbamide, (P.), B., 315.
- Merck, *E.* See also Merck, *W.*
- Merck, *E.*, Chemische Fabrik, and Oberlin, *M.*, manufacture of cotarnine derivatives, (P.), B., 586.
- Merck, *F.*, and Wedekind, *E.*, magneto-analytical investigations on cobalt oxide catalysts for the oxidation of carbon monoxide at the ordinary temperature, A., 430.
activation by admixture; magneto-catalytic investigation of mixtures of manganese dioxide and hydrated cobaltic oxide, A., 1380.
- Merck, *F.* See also Merck, *W.*
- Merck, *K.* See Merck, *W.*
- Merck, *L.* See Merck, *W.*
- Merck, *W.*, Merck, *K.*, Merck, *L.*, Merck, *W.*, and Merck, *F.* (Merck, *E.*), separation of liquid [hydrocarbon] mixtures, (P.), B., 358.
- Merck & Co. See Engels, *W. H.*
- Merica, *P. D.* See Internat. Nickel Co.
- Merka, *A.* See Fischer, *Hans.*
- Merkel, *E.*, sampling of waters for oxygen determination, B., 588.
- Merkelbach, *O.*, solubility of cholesterol in the bile, A., 1308.
- Merkl, *W.* See Soc. of Chem. Ind. in Basle.
- Merriam, *H. T.* See Gen. Chem. Co.
- Merrill, *D. R.*, and Union Oil Co. of California, soluble oil containing ether derivatives of polyhydroxy-alcohols, (P.), B., 314.
- Merrill, *G. P.*, composition and structure of meteorites, A., 1157.
- Merrill, *H. B.*, control of vegetable tan liquors for tanning light leathers, B., 113.
action of water on vegetable-tanned leather. II. Resistance of the collagen-tannin compound to hydrolysis on long washing, B., 783.
- Merrill, *H. B.*, and Bowlus, *J. L.*, absorption by leather of sulphur compounds from spruce [and sulphite-cellulose] extract, B., 114.
- Merrill, *H. B.*, and Henrich, *R. C.*, determination of chromium, iron, and aluminium in chrome[tanned] calf leathers, B., 874.
- Merrill, *H. B.*, and Schroeder, *H.*, effect of temperature on chrome tanning, B., 114.
- Merrill, *P. W.*, spectrum of *B. D*+11° 4673, A., 266.
- Merrill Co. See Haun, *J. C.*
- Merriman, *I. B.* See Manville-Jenekes Co.
- Merriman, *T.*, durability of Portland cement, B., 191.
- Merritt, *G. E.* See Tool, *A. Q.*
- Merryman, *W. W.* See Westinghouse Lamp Co.
- Merten, *W. J.* See Westinghouse Electric & Manuf. Co.
- Mertens, *E.*, extraction of neutral grease from wool-scouring water and treating same, (P.), B., 675.
- Merz, *A.*, effect of various alloying elements on the critical points of carbon steels, B., 560.
- Merz, *A.*, and Brennecke, *E.*, diffusion of zinc and lead into liquid tin; kinetics of soldering, B., 1073.
- Merz, *A. R.* See Whittaker, *C. W.*
- Merz, *E.* See Ruggli, *P.*
- Merz Merz-Werke Gebrüder, protection against the noxious effect of inhaling mercury vapour, (P.), B., 531.

- Merzbacher, S., oxidation processes of drying oils. III., B., 154.
 Mesick, H. F. See Brit. Thomson-Houston Co., Ltd.
 Messenger, (Miss) H. A. See Webb, H. W.
 Messer, A., prevention of abnormal cooling of crude liquid oxygen in the lower part of the two-column liquid air rectifier, (P.), B., 189.
 Messer, I. R. See Crowley, J. L.
 Messerschmitt, A., decomposition of raw phosphates, (P.), B., 57, 550, 988.
 Messing, B., distribution of amino-acids between plasma and erythrocytes, A., 490.
 Messinger, J. See Lang, R.
 Messini, M., behaviour of ferrous salts in the digestive tract, A., 1061.
 Messkin, V. S., effect of cold-drawing on the magnetic properties of a carbon steel, B., 235.
 Messkin, V. S. See also Kussmann, A.
 Metal Castings, Ltd., and Nicholson, A. H., [die]-casting of metals or alloys [with an aluminium base], (P.), B., 1077.
 Metal Edge Filter Corporation. See Kraemer, W. L.
 Metal & Thermit Corporation. See Lubowsky, S. J., and Masing, G.
 Metallbank & Metallurgische Gesellschaft Akt.-Ges., improving the electrical and thermal conductivity of active charcoal, (P.), B., 132.
 recovery of volatile metals from ores, metallurgical products, and residues, (P.), B., 196.
 dehydration and heating of oils and fats, (P.), B., 203.
 ternary and polynary aluminium alloys, (P.), B., 332.
 improvement of coinage alloys, (P.), B., 333.
 internally heated low-temperature carbonisation plant, (P.), B., 751.
 Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Halbern, H. von, preparation or revivification of active carbon, (P.), B., 311.
 Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Klencke, H., roasting of pyritic slimes, (P.), B., 331.
 Metallbank & Metallurgische Gesellschaft Akt.-Ges., Deutsche Sprengstoff-Akt.-Ges., Melzer, W., and Boltenstern, W. von, production of nitric acid, (P.), B., 187.
 Metallbank & Metallurgische Gesellschaft-Akt.-Ges., and Vaders, E., alloys for pressed brass bearings, (P.), B., 198.
 Metallgesellschaft Akt.-Ges., cleaning the electrodes of electrical gas-cleaning apparatus [by jarring], (P.), B., 22.
 production of smooth and dense electrolytic metallic deposits, (P.), B., 107.
 production [by the Waelz process] of metallic oxides adapted to be used as pigments, (P.), B., 188.
 production of rich combustible gas, (P.), B., 230.
 purifying aqueous liquids, particularly waste water from factories, (P.), B., 442.
 ignition furnace, (P.), B., 464.
 solid electric conductor, especially for high and maximum voltages, (P.), B., 466.
 production of zinc salt solutions, (P.), B., 503.
 treatment of ores, metallurgical products, etc., (P.), B., 513.
 treatment of gases with solid substances, (P.), B., 539.
 manufacture of refractory insulating material, (P.), B., 714.
 purification of hot gases, (P.), B., 722.
 refining vegetable and animal fats and oils by removing the free fatty acids therefrom by distillation, (P.), B., 826.
 ensuring stability of operation in the electrical cleaning of gases from revolving furnaces, (P.), B., 995.
 aluminium alloys, (P.), B., 1076.
 increasing the grain size of sulphide ores during [blende] desulphurisation, (P.), B., 1115.
 production of (A) alkali phosphates, (B) acid disodium pyrophosphate, (P.), B., 1151.
 Metallgesellschaft Akt.-Ges., Forster, H. von, and Lay, E., production of composite metals suitable for hot-rolling, by casting-on coatings of copper-zinc alloys, (P.), B., 720.
 bright annealing of metals, (P.), B., 952.
 Metallgesellschaft Akt.-Ges., Goldschmidt, V. M., and Stenvik, K., moulds for casting metals, (P.), B., 63.
 Metallgesellschaft Akt.-Ges., and Hoehofenwerk Lübeck Aktien-Gesellschaft, rendering utilisable cupriferous and zinciferous ores, (P.), B., 913.
 Metallgesellschaft Akt.-Ges., and Hubmann, O., production of comparatively smokeless fuels from lignites, bituminous coals, etc., (P.), B., 1099.
 Metallgesellschaft Akt.-Ges., Hubmann, O., and Voerkel, F., shaft furnaces, (P.), B., 196.
 Metallgesellschaft Akt.-Ges. See also K.D.P., Ltd.
 Metallisator Berlin Akt.-Ges., apparatus for spraying metal coatings, (P.), B., 197.
 Meters, Ltd., and Glover, W. T., [valve for] retort-house gas governors, (P.), B., 704.
 Metherell, A., and Barnhart, G. E., cementitious material [for manufacture of glazed bricks, building blocks, etc.], (P.), B., 60.
 Metherell, A., Barnhart, G. E., and Pfaff, H. E., cementitious composition, (P.), B., 864.
 Metrikin, R. M. See Joffe, I. S.
 Metropole Developments, Ltd. See Schmid, A.
 Metropolitan-Vickers Electrical Co., Ltd. See Dennes, N.
 Mett, F. A., and Powhatan Mining Corporation, refining of asbestos ore, (P.), B., 426.
 Mettegang, H. See Deuts. Sprengstoff A.-G.
 Metz, L. See Lenze, F.
 Metz Laboratories, Inc., H. A., Pitkin, G. P., and Hooper, C. W., manufacture of spinal anæsthetic solutions, (P.), B., 1004.
 Metzger, F. W., testing materials as repellents against the Japanese beetle, A., 811.
 Metzger, H., viscosities of [tar and] bituminous materials and the relationship between values obtained by different methods, B., 496.
 Metzger, J., Kreutzer, A., Helthaler, T., and Riebeck'sche Montanwerke A.-G., A., refining of low-boiling hydrocarbons, (P.), B., 1014*.
 Metzger, R. See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
 Metzger, W. H., replaceable bases of irrigated soil, B., 524.
 Metzner, P., fluorescent substances in seeds and fruits, A., 1483.
 Meulen, H. ter, determination of nitrogen in organic compounds by hydrogenation, A., 629.
 Meulen, H. ter, Opwyrd, H. F., and Ravenswaay, H. J., determination of sulphur in organic material by hydrogenation, A., 357.
 Meulen, H. ter, Ravenswaay, H. J., and De Veer, J. R. G., determination of oxygen in organic substances by hydrogenation, A., 357.
 Meulen, J. H. van der, bromo-iodometric investigations. I. and II., A., 1392.
 bromo-iodometric investigations. III. Determination of iodate and bromate present together, A., 1542.
 preparation of metal bromides, (P.), B., 988*.
 Meulen, P. A. van der, and Leeuwen, E. R. van, insecticidal properties of soaps against the Japanese beetle, B., 297.
 Meunier, F., and Soudure Electrique Autogène Société Anonyme, electrode suitable for arc-welding, (P.), B., 516*.
 Meunier, L., and Lesbre, M., hydrolysis of solutions of chromic salts, A., 293.
 Meunier, L., and Le Viet, K., hydrophilic properties of collagen, A., 33.
 tanning problem, B., 732.
 problem of tanning and its generalisation, B., 919.
 Meunier, L., and Vallette, J., degumming of silk by proteolytic enzymes, B., 1103.
 Meuris, H., manufacture of sulphuric acid and artificial Portland cement, (P.), B., 322.
 Meurs, W. A. van. See Bertram, S. H.
 Meursing, A. See Friedländer, D.
 Meyer, A., and Mathey, S., volumetric determination of acetone, A., 1409.
 Meyer, A. H., phosphorus-fixing compound in the soil, B., 875.
 Meyer, A. W. See Johnson, Warren C.
 Meyer, C. R., and Hettler, R. A., distribution of vitamin-A in some corn-milling products, A., 255.
 Meyer, D., and Obst, P., action of various nitrogenous fertilisers on acid soils, B., 208.
 Meyer, D., Obst, P., and Wilczewski, F., acidity, degree of saturation, and lime requirement of various soils, based on pot experiments, B., 256.
 Meyer, E., and Fichte, E., discharge conduits for moisture-laden gases, (P.), B., 449.
 Meyer, E. See also I. G. Farbenind. A.-G.
 Meyer, (Frl.) Edith, electron and positive-ion emission from tungsten, molybdenum, and tantalum incandescent filaments in potassium vapour, A., 514.
 Meyer, H. A., and Fleischmann Co., manufacture of yeast, (P.) B., 31*.

- Meyer, *E. H. L.*, Raman effect for water. II., A., 839.
Raman bands of water, A., 1091.
- Meyer, *E. H. L.*, and Port, *I.*, Raman effect for water. I., A., 839.
- Meyer, *E. M.*, production of soluble albumin, (P.), B., 585*.
- Meyer, *Franz.* See Lichtenberger, *T.*
- Meyer, *Friedrich*, and Chemische Fabrik Kunheim & Co., manufacture of sodium sulphide drops, (P.), B., 988*.
- Meyer, *F. W.*, reactivation of decolorising carbon, (P.), B., 936, 1057*.
- Meyer, *Hans*, and Raudnitz, *H.*, mellitic acid and its derivatives, A., 1436.
- Meyer, *Hermann.* See Chem. Ind. A.-G., and Soc. of Chem. Ind. in Basle.
- Meyer, *H. H.*, effect of temperature and dissolved electrolytes on the monochromatic Debye-Scherrer diagram for water, A., 1097.
- Meyer, *H. K.* See Scholl, *R.*
- Meyer, *Johannes*, deposition of sediments and the formation of concretions in urinary ducts, A., 1207.
- Meyer, *Julius*, and Franke, *W.*, preparation of telluric acid, A., 1389.
- Meyer, *Julius*, and Goralczyk, *R.*, new technical alloys of calcium, B., 330.
- Meyer, *Julius*, and Kanters, *R.*, tervalent manganese. VII., A., 179.
solubility of manganese dioxide under the influence of metallic mercury, A., 179.
- Meyer, *Julius*, and Pukall, *K.*, bromination of cinnamic acids, A., 175.
- Meyer, *Julius*, and Tischbirek, *H.*, vanadium oxides as catalysts in [organic] elementary analysis, A., 940.
- Meyer, *Julius*, and Wurm, *V.*, decomposition of hexabromoselenious acid and its salts, A., 877.
- Meyer, *J. B.*, drying of coated papers, B., 183.
- Meyer, *J. H.* See Friese, *R. W.*
- Meyer, *Karl*, fermentation by yeast with altered permeability of the cell membranes, A., 1067.
- Meyer, *Karl.* See also Kuhn, *R.*
- Meyer, *Konrad*, apparatus for watering pot cultures and determining the absolute water consumption, B., 296.
- Meyer, *Konrad.* See also Günther-Schulze, *A.*
- Meyer, *K. F.* See Zobel, *C. E.*
- Meyer, *K. H.*, fine structure, tensile strength, and contractility of animal tissues, A., 104.
muscular contraction, A., 494.
spatial conceptions of the structure of carbon compounds and their application to the chemistry of high polymerides, A., 1517.
- Meyer, *K. H.*, and Hopff, *H.*, more complex intermediate products of the acetolysis of cellulose, A., 750.
- Meyer, *K. H.*, Hopff, *H.*, and Mark, *H.*, [hydrolysis of polysaccharides], A., 1025.
- Meyer, *K. H.* See also Gen. Aniline Works, Inc., I. G. Farbenind. A.-G., and Naoum, *P.*
- Meyer, *L.*, four-year field trial with six different nitrogenous fertilisers, B., 28, 115.
tomato, a sensitive and rapid indicator of the phosphorus-poverty of soil, B., 735, 922.
- Meyer, *L.* [with Beutelspacher, *H.*], iodised malt, B., 82.
- Meyer, *Lothar*, dependence of molecular polarisation on temperature, especially in the case of substances with groups capable of free rotation, A., 980.
variation with temperature of molecular polarisation and its relationship to free rotation, A., 1331.
electrostatic impedance of free rotation, A., 1346.
- Meyer, *M. C.*, and Meyer Bros. Inc., *J. H.*, manufacture of iridescent products, (P.), B., 318.
- Meyer, *O.*, production of starch capable of swelling in cold water, (P.), B., 963*.
- Meyer, *R.* See Rippel, *A.*
- Meyer, *Rudolf*, nutrient content [of soils] and nutrient requirements [of plants], B., 207.
yield law and *Aspergillus niger*, B., 834.
- Meyer, *R. F.*, and Meyer Mineral Separation Co., treating ores [by chloridising roasting], (P.), B., 19.
- Meyer, *R. J.*, and Struwe, *F.*, "practical" atomic weights, A., 1495.
- Meyer, *R. J.* See also Bodenstein, *M.*
- Meyer, *R. K.* See Fevold, *H. L.*
- Meyer, *T.*, K-absorption edges in X-ray spectrum, A., 267.
- Meyer, *W.*, examination of alkali iodides, B., 238.
alcohol determination and the alcohol value in Tinctura iodi, D.A.B. VI., B., 484.
castor oil soaps in spirituous [medicinal] preparations, B., 1045.
- Meyer, *W. W.*, adaptability of various methods to the colour determination of whiteware bodies, B., 326.
- Meyer, *W. W.* See also Dietrich, *W. F.*
- Meyer Bros., Inc., *J. H.* See Meyer, *M. C.*
- Meyer Mineral Separation Co. See Meyer, *R. F.*
- Meyer Mineral Separation Corporation, recovery of metal values from their ores or from metalliferous materials, (P.), B., 1159*.
- Meyer, *W. von*, light emission of some alkali halide phosphors containing thallium, A., 665.
- Meyerhof, *O.*, changes of the osmotic pressure of muscle in fatigue and rigor, A., 1614.
- Meyerhof, *O.*, and Iwasaki, *K.*, extent of fermentation and the oxidation quotient of yeast, A., 1620.
- Meyerhof, *O.*, and Lipmann, *F.*, reaction changes of active muscle in connexion with the change of creatinephosphoric acid (phosphagen), A., 810.
changes of p_{H} during activity of muscle, A., 1211.
- Meyerhof, *O.*, Lundsgaard, *E.*, and Blaschko, *H.*, energetics of muscular contraction with increased formation of lactic acid, A., 1312.
- Meyerhof, *O.*, and Nachmansohn, *D.*, synthesis of creatinephosphoric acid in living muscle, A., 1210.
- Meyer-Keller & Cie, *O.*, tubes or flexible hose-pipes with an internal non-rusting coating, (P.), B., 245.
- Meyers, *H. H.*, and Armour Fertilizer Works, fertiliser, (P.), B., 435.
manufacture of concentrated fertiliser, (P.), B., 924*.
- Meysersberg, *P.*, manufacture of a spreading paste for proofing textiles, (P.), B., 370.
- Meylink, *J. A.* See Pieters, *H. A. J.*
- Meyring, *K.* See Fricke, *R.*
- Meythaler, *F.*, and Cario, *R.*, antagonism of adrenaline and insulin on the regulation of blood-sugar in adrenalectomised dogs, A., 1623.
- Mezger, *O.*, [writing on] documents and envelopes, B., 349.
forensic investigations of firearms, maliciously damaged trees, and forged coins, B., 1133.
- Mezger, *O.* See also Eichler, *H.*
- Mezger, *R.*, modern coke ovens as gas producers in large gas works; their sphere of application and economic principles, B., 88.
elasticity of production as a factor in the progressive economy of gas works, B., 975.
- Mezger, *R.*, and Lechler, *P.*, bituminous paint, (P.), B., 781*.
- Mezger, *R.*, and Payer, *T.*, complete gasification of coal: tests of the suitability of coal for complete gasification, B., 309.
- Mezger, *R.*, and Pistor, *F.*, [coal] gas drying, B., 594.
[gas dehydration], B., 975.
- Mezger, *R.* See also Nübling, *R.*
- Mezzadrolì, *G.*, and Varetton, *E.*, action of ultra-violet rays on the germination of seeds and the growth of plants, A., 967.
action exerted by ultra-short electromagnetic waves on the catalase activity of seeds, A., 968.
purification and decolorisation of cane and beet-sugar juices by the combined use of sulphur dioxide and activated carbons, B., 211*.
- Mezzadrolì, *G.*, and Veremeenco, *P.*, causes influencing the yield of molasses air-yeast, B., 261.
- Micanite & Insulators Co., Ltd., and Haefely, *G. E.*, [building of high-tension] electric insulators [with embedded conductors], (P.), B., 202.
- Michaelis, *K.* See Stahn, *A.*
- Michaelis, *L.*, oxidation-reduction systems of biological importance. VI. Catalytic effect of iron on oxidation of cysteine, A., 42.
diethylbarbiturate buffer, A., 995.
- Michaelis, *L.*, and Eagle, *H.*, redox [oxidation-reduction] indicators, A., 1142.
- Michaelis, *L.*, and Salomon, *K.*, respiration of red blood-corpuscles activated by substances stimulating respiration, A., 1053.
- Michaelis, *O.*, histochemical detection of gold, A., 1486.
- Michailenko, *J.*, complex compounds of benzylquinoline chloride or bromide with metallic salts, A., 616.
- Michailenko, *J.*, and Minofeev, *B.*, action of amines on benzylquinoline chloride, A., 616.

- Michailov, B. M. See Arbusov, B. A.
 Michailov, M. See Massobrio, E.
 Michalls, G. See Bergmann, M.
 Michaux, A. See Randoin, L.
 Micheel, F., configuration of digitoxose, A., 455, 583.
 Micheel, F., and Micheel, H., configuration of α - and β -forms in the sugar series, A., 455.
 Micheel, H. See Micheel, F.
 Michel, A., tests of an electrical [blast-furnace] gas-purification plant, B., 1112.
 Michel, A., and Bénazet, P., recovery of austenitic steels, B., 287*. effect of titanium on the transformation points of steels, B., 1069.
 Michel, F., delicate reaction of colophony and resin acids, B., 384.
 Michel, G., protecting easily oxidisable metals such as those having a base of magnesium, aluminium, calcium, etc., (P.), B., 565*.
 Michel, G., and Berg, H. O., autogenous welding of magnesium and its alloys, (P.), B., 427*. protection of readily oxidisable metals [magnesium and its alloys], (P.), B., 427*.
 Michel, R. See I. G. Farbenind. A.-G.
 Michel-Durand, E., influence of alcohol treatment on the extraction of tannin from vegetables, A., 258.
 Michelin & Cie, composition capable of being moulded, (P.), B., 559.
 Michel-Lévy, A., and Mnraour, H., microscopical examination of colloidal powders in polarised light, B., 168.
 Michels, A., and Lennssen, M. H., use of effect of pressure on electrical resistance of manganin as a method of measuring pressure, A., 281.
 Michels, A. See also Nijhoff, G. P.
 Michels, A. M. J. F., catalytic reactions at high pressures, A., 867.
 Michels, M., manufacture of a dye for colouring photographic prints, (P.), B., 487. decoration of fabrics by the action of light and the reduction of silver salts, (P.), B., 487.
 Michels, W. C., optical excitation function of helium, A., 1327.
 Michot-Dupont, G., purification and bleaching of mineral oils and other fatty materials, (P.), B., 358.
 Micka, J., and Vrana, K., possibilities of standardising the granulation test for flour, B., 788.
 Mickwitz, A., radioactivity of Estonian sulphide muds, A., 1398.
 Middendorp, D. J., measuring the turbidity of liquids, (P.), B., 127.
 Middleton, E. B. See Du Pont de Nemours & Co., E. I.
 Middleton, G., determination of iodine in thyroid gland, thyroxine, and other organic compounds, A., 505.
 Middleton, H. E., properties of soils which influence soil erosion, B., 575.
 Middleton, H. E. See also Olmstead, L. B.
 Middleton, J. H. See Internat. Construction Co., Ltd.
 Middleton, W. See Macleod, J. J. R.
 Midgley, T., jun., and Henne, A. L., natural and synthetic rubber. IV. δ -Methyl- Δ^8 -octene by isoprene ethylation. V. Tetramethyloctadiene, A., 888. organic fluorides as refrigerants, B., 651.
 Midland Coal Products, Ltd., and Truzzell, J. E., cracking and distillation of heavy hydrocarbon oils, (P.), B., 702.
 Midwest Steel & Supply Co., Inc., [stream-line gas] filters, (P.), B., 127.
 Miedbrodt, C., safety and stopping arrangements for water-gas producers and other intermittently operating apparatus, (P.), B., 855.
 Mieg, W. See Gen. Aniline Works, Inc.
 Mieh, W., Koch, P., and Kratzert, J., dehydration of analytical precipitates by ignition, A., 564.
 Miekeley, A., doubtful existence of the so-called " α -diamylose," A., 1414.
 Miekeley, A. See also Bergmann, M.
 Miermeister, A., evaluation of potable spirits, especially "Kirschwasser" and rum, by determination of the higher oxidation potential by means of chloramine-T, B., 787.
 Miermeister, A. See also Büttner, G.
 Mietzsch, F. See Schulemann, W.
 Migla, M., electronic conception in organic chemistry. III. Dissociation and semihydrobenzoin rearrangement of β -acetyl- α -dimethylglycol, A., 60.
 Mignonac, G., and Hoffmann, C., ketenimines and tautomerism of nitrites, A., 1564.
 Miguet, P. L. J., and Perron, M. P., electric furnace, (P.), B., 566.
 Mihăilescu, M. A., and Caragea, S. P., Grignard compounds of certain polyhalogenated benzene derivatives and their condensation products with aromatic aldehydes and ketones, A., 339.
 Mihăilescu, M. A., and Protopopescu, (Mme.) I., action of hydrazine acetate on 3-nitrophthalic anhydride, A., 1434.
 Miholić, S. S., geochemistry of iodine, A., 187. pyrophosphate method for determination of magnesium, A., 443. alkaline waters of Lower Kostivnica, Yugoslavia, A., 886.
 Mik, F., and Holzverkohlungsind. Akt.-Ges., activated charcoal, (P.), B., 597.
 Miki, S., properties of kaoliang starch. I. Adsorption of iodine and chlorine by kaoliang starch granules, B., 1127.
 Mikawa, H. See Yamagawa, M.
 Mikeska, L. A. See Levene, P. A.
 Mikó, G. von, evaluation of drugs containing caffeine. I. Tea, B., 585.
 Miksch, R., and Salmang, H., slagging of refractory materials. III. Magnesite, B., 189.
 Mikšić, J., Režek, A., and Pinterović, Z., reaction between glyoxal and resorcinol, A., 1284.
 Mikumo, J., soap solutions. VII. Adsorption of soap on charcoal, A., 287. soap solutions. VIII. Protective activities of soaps on Congo-rubin sol, A., 1518.
 Milani, E., preservation of food products, (P.), B., 928.
 Millas, N. A., auto-oxidation reactions; oxidation of anethole [isoeugenol and isosafrole], A., 469.
 Milashevski, V., relation of bulk density, size, and colour of mustard seeds to their oil content, B., 154.
 Milbery, J. E. See Whitnah, C. H.
 Milbradt, W., lipæmia, A., 1208.
 Mildner, E. See Hauswald, W.
 Mildner, H. See Gen. Aniline Works, Inc.
 Miles, E. H., and Reilly, G., manufacture of [concentrated] vegetable foods, (P.), B., 1045*.
 Miles, G. W., Dreyfus, C., and Celanese Corporation of America, manufacture of cellulose esters, (P.), B., 760.
 Miley, H. A. See Pietenpol, W. B.
 Milgevskaia, W. L. See Burkser, E. S.
 Milheiro, E., amino-nitrogen of human blood. I.-III., A., 1462.
 Milin, V. B. See Tvertzin, V. S.
 Milk Products Sub-Committee of the Standing Committee on the uniformity of analytical methods, milk products. II. Determination of sucrose in sweetened condensed milk, B., 636.
 Millar, G. A. See Brit. Thomson-Houston Co., Ltd.
 Millar, W. J., and Electric Furnace Co., Ltd., electric resistance furnaces, (P.), B., 1160.
 Millar, W. J. See also Electric Furnace Co., Ltd.
 Millars' Machinery Co., Ltd. See Hodgson, C. G.
 Miller, A., and Agfa Anasco Corporation, process for hardening colloids, (P.), B., 733*.
 Miller, A. L., and Ault & Wiborg Co., method and apparatus for making ink [from hydrocarbons], (P.), B., 781*.
 Miller, B. A., separation apparatus, (P.), B., 693.
 Miller, B. E. M. See Brit. Celanese, Ltd.
 Miller, C. H. See Munsell, H. E.
 Miller, E. B., and Silica Gel Corporation, [negative iron electrode for] alkaline storage battery, (P.), B., 335.
 Miller, E. B. See also Silica Gel Corp.
 Miller, E. G., frozen section technique, A., 1465.
 Miller, E. J. See Haworth, W. N.
 Miller, E. R., chemical nature of enzymes, A., 498. insoluble tyrosinase of the velvet-bean seed coat, A., 640.
 Miller, F. H. See Klein, L.
 Miller, F. W., means for reproducing designs in metal by aid of photography, (P.), B., 1048. manufacture of bimetallic strips, plates, etc., (P.), B., 1077*.
 Miller, G. See Light, R. F.
 Miller, G. W., and Bakelite Corporation, phenolic resin and its manufacture, (P.), B., 157.
 Miller, G. W. See also Kilbourn, F. L., jun.
 Miller, H. See Lechliden, F.

- Miller, H. K., and Andrews, J. C., optical activity of *d*-arginine, A., 1026.
 source of error in polariscopic measurements, A., 1142.
 Miller, J. E., and Brown, G. G., motor-fuel volatility. III. Effective volatility under driving conditions, B., 802.
 Miller, J. M. See Theis, E. R.
 Miller, J. N., and Urbain, O. M., quantitative separation of phenol from the cresols and higher phenols, B., 360.
 Miller, J. N. See also Urbain, O. M.
 Miller, L. See Mitchell, H. S.
 Miller, L. B., and Rinehart, W. G., beneficiation of manganese ores, (P.), B., 64.
 Miller, L. F. See Ogburn, S. C., jun.
 Miller, M. See Niklas, H.
 Miller, O. See Chavanne, G.
 Miller, R. C. See Thompson, T. G.
 Miller, S. P., and Barrett Co., rotary filter, (P.), B., 3.
 polymerisation of oils, (P.), B., 499*.
 Miller, S. P. See also Barrett Co., and Dittmar, H. R.
 Miller, T. F., apparatus for conveying solid materials through pipes by means of compressed air, (P.), B., 269.
 Miller, V. See Oldright, G. L.
 Miller, W., and Gray Processes Corporation, apparatus for contacting vapours with solids, (P.), B., 1050.
 Miller, W. B., and Electro-Metallurgical Co., welding rods, (P.), B., 1116.
 Miller, W. B., Lytle, A. R., and Oxweld Acetylene Co., flux [for autogenous welding], (P.), B., 670.
 Miller, W. B., and Oxweld Acetylene Co., welding flux [for iron-chromium alloys], (P.), B., 332.
 welding [rods for ferrous metals], (P.), B., 914.
 Miller, W. B. See also Brit. Celanese, Ltd.
 Miller, W. J., drying of ceramic ware, (P.), B., 327.
 manufacture of pottery ware, (P.), B., 1067.
 Milligan, L. H., strength of glass containing cracks, B., 557.
 Millikan, R. A., history of cosmic rays, A., 517.
 most probable 1930 values of the electron and related constants, A., 977.
 Milliken, M. G., nitrocellulose of low viscosity, B., 533.
 Milliken Bros. & Blaw-Knox, Ltd., and Dyrssen, W., heat exchangers, (P.), B., 536.
 Millington, A. E., and Fir-Tex Insulating Board Co., manufacture of artificial timber, etc., (P.), B., 420.
 Millott, J. O'N. See Prideaux, E. B. R.
 Mills, A. G. See Iredale, T.
 Mills, A. K. See McKenzie, A.
 Mills, G. C. See Thompson, R. D.
 Mills, H. A. T. See Imperial Chem. Industries, Ltd.
 Mills, J. E. See Steele, B. D.
 Mills, W. H., molecular dissymmetry, A., 1095.
 Milne, S., Fourdrinier paper-making machines, (P.), B., 415.
 paper pulp-beating engines, (P.), B., 1062.
 Milner, R. D. See Schofield, W. R., jun.
 Milnesia International Inc. See McGowan, W. C.
 Mitobedzki, T., and Krakowiecki, S., action of bromine on phosphorus trichloride, A., 577.
 Milton, Y., glauconite in the pliocene sands of Brittany, A., 188.
 Milone, M., dioximes. LX., A., 226.
 Milovanov, S. N., variation of the physiological action of Ringer's solution after filtration, A., 1472.
 Milroy, A., and Egg Patents, Ltd., preservation of eggs, (P.), B., 347.
 Milski, A. See Einhorn, G.
 Milsum, J. N., and Dennett, J. H., the sugar palm, B., 435.
 Min, P. See Sugihara, N.
 Minaev, M. G., and Larvex Corporation, mothproofing material, (P.), B., 373*.
 Minaev, M. G., and Wright, J. H., mothproofing, B., 139.
 Minaev, V. I., and Fedorov, B. P., *ms*-dichloroanthracene and its β -sulphonic acid as starting materials for production of alizarin, B., 1143.
 Minaev, V. I., Fomin, P., and Jakimov, G., stability, bleaching power, and decomposition products of sodium hypochlorite solutions, B., 186.
 Mine Safety Appliances Co., and Dotter, A. L., air-purifying apparatus, (P.), B., 845.
 Miner, C. G., production of phosphorus [penta]chloride from phosphate rock, (P.), B., 12.
 Miner, C. S. See Nash, C. A., and Trickey, J. P.
 Minerals Separation, Ltd., and Keller, C. H., froth-flotation concentration of ores, (P.), B., 426.
 Minerals Separation, Ltd. See also Williams, P. T.
 Mingoa, Q., arsenic compounds of pyrrole and indoles, A., 626.
 indolylphosphines, A., 628.
 preparation of oxindoles and iodoindoles, A., 1296.
 Mingoa, Q. See also Oddo, B.
 Mingus, M. A., hair dye, (P.), B., 137.
 Minimax Akt.-Ges., production of foam for fire-extinguishing purposes, (P.), B., 889.
 Minimax Akt.-Ges. See also Thiecke, J.
 Minimax Akt.-Ges., and Deutsche Pyrotechnische Fabriken, Thiecke, J., and Herzog, H., manufacture of self-combustible mixtures, (P.), B., 488.
 Minina, E. G. See Sabinin, D. A.
 Minker-Bogdanova, E. T., dependence of the sugar curves of the blood on acid and alkaline diets with subcutaneous injection of pilocarpine, A., 1063.
 Minker-Bogdanova, E. T., and Obratzov, G. D., blood-lipase in alimentary hyperglycemia, A., 1209.
 Minkowski, R., influence of self-absorption on measurements of the intensities of spectral lines, A., 1225.
 Minkowski, R., and Mühlenbruch, W., transition probabilities in the two first doublets of the principal series of caesium, A., 1228.
 Minnesota Mining & Manufacturing Co. See Carlton, R. P.
 Minofev, B. See Michailenko, J.
 Minor, H. R., and Industrial Process Corporation, curing of moulded rubber articles, (P.), B., 1081.
 Minorsky, N., electronic conduction and ionisation in crossed electric and magnetic fields, A., 972.
 Minovici, S., function of cholesterol in the organism, A., 237.
 Minovici, S., and Vangelovici, M., new cases of stereoisomerism in the cholesterol group, A., 593.
 additive power of cholic acid, A., 1435.
 Minton, T. See Sabetay, S.
 Mirceson, J. See Angelescu, E.
 Mirose, M., manufacture of higher alcohols and soaps from waxes. I. Odourless soap and wax alcohol from sperm-head oil, B., 292.
 Mirskaia, L., presence of a hygienic substance in the mouse placenta, A., 646.
 Mirsky, A. E., and Anson, M. L., protein coagulation and its reversal; reversal of the coagulation of haemoglobin, A., 102, 630.
 Mirsky, A. E. See also Anson, M. L.
 Mirvish, L., effect of cereal extracts on blood-calcium, A., 811.
 Mirvish, L., and Bosman, L. P., effect of extracts of suprarenal cortex on the blood-calcium, A., 378.
 effect of testicular extracts on blood-calcium, A., 378.
 Misao, T., blood-proteins, A., 237.
 Mischke, W., production of spinning fibres, (P.), B., 318.
 Mischtschenko, K. P., preparation and properties of pure nitric acid, A., 438.
 rôle of impurities in the variation of the heat of solution of monomorphous salts, A., 1375.
 Mischtschenko, K. P., and Tscherebov, S. J., systems water-acetic acid and acetic acid-acetic anhydride as a complete system water-acetic anhydride on the basis of vapour-pressure measurements, A., 1106.
 Mischtschenko, K. P. See also Lange, E.
 Mishima, T. See Nagaoka, H.
 Mishkin, E., improving the performance of rectifying columns and evaporators, B., 1.
 Mislin, E., improving the usefulness of feeding-stuffs, (P.), B., 584.
 decomposition and improvement of feeding-stuffs and foods, (P.), B., 585.
 Mislowitzer, E., enzymic liberation of halogens from iodine-bromine-protein compounds, A., 112.
 Mislowitzer, E., and Loewe, E. L., fatty degeneration of the liver in phosphorus poisoning, A., 371.
 Mislowitzer, G. See also Kauffmann, F.
 Mississippi Glass Co., method and apparatus for producing sheet glass, (P.), B., 103, 145.
 Misske, B., effect of alterations in the concentration of the cations of Ringer solution on peripheral nerves, A., 809.
 effect of alterations in the concentration of the cations of Ringer solution on striped muscle, A., 809.
 Mita, S., reduction of Anshan iron ore, B., 559.
 Mitamura, K., influence of neutral salts on alcohol coagulation of fresh milk, B., 33.
 Mitchell, C. A., and Frees Co., H. E., manufacture of malt liquids, (P.), B., 682.

- Mitchell, *A. C. G.*, polarisation of sensitised fluorescence, *A.*, 979.
behaviour of positive ions in hydrogen, *A.*, 1337.
- Mitchell, *A. G.* See McKenzie, *A.*
- Mitchell, *H. H.*, and Beadles, *J. R.*, paired-feeding method in nutrition experiments and its application to the problem of cystine deficiencies in food proteins, *A.*, 1060.
- Mitchell, *H. H.*, and Hamilton, *T. S.*, swine type studies. III. Energy and protein requirements of growing swine and the utilisation of food energy in growth, *A.*, 1060.
- Mitchell, *H. H.* See also Beadles, *J. R.*, Carroll, *W. E.*, Hamilton, *T. S.*, and McClure, *F. J.*
- Mitchell, *H. S.*, and Miller, *L.*, inorganic elements of spinach in treatment of nutritional anemia, *A.*, 240.
- Mitchell, *J.*, dyeing machines, (*P.*), *B.*, 371.
- Mitchell, *N. W.* See Wooster, *C. B.*
- Mitchell, *R. W.*, cleaning aluminium, *B.*, 911.
- Mitchell, *S. A.*, spectrum of the chromosphere, *A.*, 653.
- Mitchell, *T. A.*, and Hughes, *L. M.*, treating [sulphide] ores; chlorinating [sulphide] ores, (*P.*), *B.*, 150.
- Mitchell, *T. F.* See Klein, *L.*
- Mitchevitch, *V. M.* See Vavon, *G.*
- Mitford, *E. R.*, and Crump, *L.*, absorption refrigerating apparatus applicable to ice-making, (*P.*), *B.*, 225.
- Mitford, *E. R.* See also Crump, *L.*
- Mithoff, *R. C.*, and Branch, *G. E. K.*, kinetics of the reaction of hexaphenylthane with oxygen, *A.*, 301.
- Mitinsky, *A. N.*, evaluation of the quality of railway rails, *B.*, 1070.
- Mitra, *H. K.*, cold-crushing strength of firebricks, *B.*, 326.
- Mitra, *N. N.* See Sen, *K. C.*
- Mitra, *S. K.* See Neogi, *P.*, and Ray, *P. C.*
- Mitscherlich, *E. A.*, determination of the nutrient requirement of soils by means of field and pot experiments, *B.*, 630.
- Mitscherlich, *E. A.*, and Behrens, *W. U.*, formulation of the yield law [of crops], *B.*, 259.
- Mitsui, *S.* See Goto, *K.*
- Mitsui, *T.*, precipitin for blood-corpuscles in red blood-corpuscles, *A.*, 802.
- Mittasch, *A.*, mixed catalysts, *A.*, 1380.
- Mittasch, *A.*, and Frankenburger, *W.* [with Schwamberger and Hodler], historical development and theory of the ammonia catalysis, *A.*, 171.
- Mittasch, *A.* See also I. G. Farbenind. *A.-G.*
- Mittler, *P. C.*, aspects of biochemical synthesis, *A.*, 479.
- Mittler, *P. C.*, and Pal, *S. C.*, nitration of 2-hydroxy-3-methyl-anthraquinone, *A.*, 919.
- Mittler, *P. C.*, and Sarkar, *A. K.*, anthraquinone series; synthesis of anthraquinones related to morindone and emodin, *A.*, 1439.
- Miura, *H.*, and Hara, *R.*, production of sodium carbonate from sodium sulphate, with ammonia as by-product, *B.*, 611.
- Miura, *K.* See Taketomi, *N.*
- Miyaguchi, *T.* See Fukui, *M.*
- Miyahara, *M.*, mercuric cyanide tartrate and its manufacture, (*P.*), *B.*, 12.
- Miyajima, *S.* See Takei, *S.*
- Miyake, *M.*, reducing the quantity of sulphurous acid gas set free from copper glance during roasting, *B.*, 1076.
- Miyamoto, *S.*, negative induced reactions, *A.*, 713.
- Miyamoto, *S.*, and Kaya, *T.*, velocity of solution of oxygen in water, *A.*, 866.
- Miyamoto, *S.*, Kaya, *T.*, and Nakata, *A.*, velocity of solution of oxygen in water. II., *A.*, 1379.
- Miyamoto, *S.*, and Schmidt, *C. L. A.*, compound amino-acids, *A.*, 1026.
- Miyamoto, *S.* See also Branch, *G. E. K.*
- Miyamura, *S.*, influence of the intersecretory glands on the carbohydrate metabolism of animals which hibernate, *A.*, 645.
relation of carbohydrate metabolism to outside temperature, thyroid gland, and insulin, *A.*, 646.
- Miyasaka, *M.* See Kaneko, *H.*
- Miyasaki, *S.*, relation between the amounts of urea in blood and in saliva, *A.*, 804.
pharmacology of lead. V. Resorption of the metal from the gastro-intestinal tract and the possibility of influencing it, *A.*, 813.
- Miyata, *A.* See Setoh, *S.*
- Miyata, *M.*, and Sasaki, *Y.*, action of ammonium salts on photographic developers, *B.*, 1169.
- Miyata, *R.* See Matsumura, *S.*
- Miyoshi, *S.* See Tanemura, *K.*
- Mizgier, *S.*, structure of lublinita, *A.*, 188.
- Mizoshita, *T.*, thermal decomposition of low-temperature tar of Fushun coal. I., *B.*, 1098.
separation [from high-temperature tar] and synthetic preparation of phenol, *B.*, 1099.
- Mizuno, *K.*, effect of ultra-violet rays on bacteriophage, and its physico-chemical nature, *A.*, 253.
- Mizushima, *S.*, anomalous dispersion and adsorption of electric waves, *A.*, 1094.
- Mizushima, *S.*, and Sack, *H.*, high-frequency conductivity of strong electrolytes in aqueous sugar solution, *A.*, 1375.
- Mizushima, *S.*, and Yamada, *T.*, influence of added sulphur on the oxidation of the less refined transformer oils, *B.*, 272.
- Mizuta, *M.*, determination of the solidification point of petroleum lubricating oil, *B.*, 542.
- Mlodzianovska, *H.*, Raman spectrum of certain isomeric substances, *A.*, 1499.
- Młynarski, *A.* See Smolénski, *K.*
- Moberg, *A. R.*, and Paige, *F. O., jun.*, ferric alumina [for water purification], (*P.*), *B.*, 661.
- Moberg, *A. R.*, and Partridge, *E. M.*, ferric alumina, *B.*, 371.
- Moberg, *E. G.*, hydrogen-ion concentration of sea-water off the coast of S. California, *A.*, 187.
phosphate, silica, and fixed nitrogen content of sea-water, *A.*, 187.
- Mocoroa, *F.*, determination of allantoin in human urine, *A.*, 105.
- Modern, *F.*, and Wernicke, *R.*, purification of anticarbuncle serum. II., *A.*, 960.
- Modern, *F.* See also Wernicke, *R.*
- Modern Food Process Co., sausage products and their manufacture, (*P.*), *B.*, 530.
- Modine, *A. B.*, heat-exchange device, (*P.*), *B.*, 2.
- Möbius, *E.* See Kröger, *M.*
- Möhl, *H.*, technical analysis of clays with the aid of the microscope, *B.*, 768.
- Moehrke, *H.* See Gen. Aniline Works, Inc.
- Möller, modern pasture management and nitrogen manuring, *B.*, 1001.
- Möller, and Pöcker, influence of nitrogen manuring on the yields from mineral soil pastures, *B.*, 161.
- Möller, *C.*, scattering of α -particles by light atoms, *A.*, 515.
anomalous scattering of α -particles by lighter elements, *A.*, 837.
- Möller, *E.*, test of kidney function with urea, *A.*, 105.
- Möller, *H.* See Bredig, *M. A.*
- Möller, *I.*, vacuum measurements in chemical works, *B.*, 1.
- Möller, *K. O.*, micro-determination of mercury in organic material, *A.*, 1326.
pharmacology of "salyrgan." IV. Chemistry of "salyrgan," *A.*, 1473.
pharmacology of "salyrgan." V. Behaviour of mercury in the organism after administration of "salyrgan"; "salyrgan" nephritis in rabbits, *A.*, 1618.
- Möller Ges.m.b.H., *K. & T.*, gas and air filter with glass-wool as filter medium, (*P.*), *B.*, 170.
- Möllering, *C. H.*, construction and use of homogenisers, *B.*, 743.
- Moelwyn-Hughes, *E. A.*, variation with temperature of the relative rates of hydrolysis of glucosides, *A.*, 426.
enzymic hydrolysis of phloridzin, *A.*, 1316.
- Moelwyn-Hughes, *E. A.*, Pace, *J.*, and Lewis, *W. C. M.*, kinetics of enzyme reactions: Schütz's law, *A.*, 371.
- Moen, *G.*, baking characteristics of various types of wheat as reflected by different baking procedures, *B.*, 1088.
- Moffatt, *R. W.*, effect of low temperatures on the impact-resistance of steel castings, *B.*, 865.
- Moffitt, *W. G.* See Baker, *J. W.*
- Moga, *A.* See Gavril, *I.*
- Mohammad, *A.* See Randall, *M.*
- Mohler, *F. L.*, and Bøckner, *C.*, photo-ionisation of caesium by line absorption, *A.*, 1079.
- Mohlman, *F. W.*, Hurwitz, *E.*, and Ruchhoff, *C. C.*, chlorination of sewage and effluents, *B.*, 303.
- Mohorovićić, *S.*, universal luminoscope (fluoroscope, phosphoroscope) and nepheloscope, *A.*, 1549.
- Mohos, *E.* See Friesz, *J.*
- Mohr, *J.*, soluble metallic electrode for galvanic cells, (*P.*), *B.*, 103.
- Mohr, *O.*, apparatus for the biological purification of sewage, (*P.*), *B.*, 396.
detection of small quantities of methyl alcohol in ethyl alcohol, *B.*, 651.
- Mohr, *R.*, and Becker, *H.*, fusible ceramic product for moulding, (*P.*), *B.*, 284.

- Mohr, W., and Eichstädt, A., emulsions. II. Stability of emulsions in relation to viscosity of fat, surface tension, and the formation of adsorption films, B., 880.
- Mohr, W., and Oldenburg, F., viscosity of milk and milk products. I. Skim milk, full-cream milk, and cream. II. Fresh and treated milk and cream, B., 738.
- Mohs, P. See Mannich, C.
- Mokragatz, M., nature of the reaction of eserine [physostigmine] obtained with an acetic acid solution of benzidine and hydrogen peroxide and its application to the colorimetric determination of eserine, A., 623.
- Mokragatz, M. See also Bertrand, G.
- Mokruschin, S. G., and Krilov, E. I., isomorphism and heat of solution, A., 36.
- viscosity, conductivity, and diffusion of aqueous solutions of isomorphous salts, A., 155.
- Moktowska, A. See Heller, J.
- Moldaenke, K. See Gen. Aniline Works, Inc.
- Moldavski, B. See Vanscheidt, A.
- Moldenhauer, O. See Fischer, Hans.
- Moldrickx, P. See Loevenich, J.
- Molen, E. van der, centrifugal separator, (P.), B., 932.
- Moles, E., constitution of oxygen and its employment as the basis of the at. wt. system, A., 515.
- Moles, E., and Batuecas, T., density and compressibility of ammonia; revision of the at. wt. of nitrogen, A., 1357.
- Moles, E., and Crespi, M., adsorption of gases by glass walls. VI. Air and carbon monoxide, A., 27.
- Moles, E., and De Paredes, P. G., vanadium ammonium alum, A., 47.
- Moles, E., and Vitoria, A. P., system PbO_2 - Pb_2O_3 - PbO , A., 36.
- Moles, E. See also Crespi, M., Salazar, M. T., and Solano, L.
- Molinari, E., biochemical dismutation; acetic fermentation, A., 251.
- Molinari, V., production of artificial marble, (P.), B., 285.
- Molinelli, E. A., and Royer, M., urobilin and bilirubin in blood and urine in leprosy, A., 808.
- Molinier, J. See Caujolle, F.
- Molitor, H., and Pollak, Leo, liver-sugar. I. Action of adrenaline and insulin on the liberation of sugar by the liver and its glycogen content, A., 1623.
- Moll, F., solutions for impregnating vegetable material [e.g., wood] to protect it against parasitic attack, (P.), B., 328.
- Moll, K. See Curtius, T.
- Molle, A. See Dantine, R.
- Moller, H., crystal grating of iron silicide, $FeSi$, A., 1351.
- Molnar. See Cournot.
- Molnar, A., cold-working of lead, tin, and cadmium at different temperatures, B., 424.
- Molnar, E. See Lieben, F.
- Moltschanova, O. S. See Krestinskaja, V. N.
- Molybdenum Corporation of America, Greene, H. L., and Taylor, C., cast-iron alloys [containing molybdenum], (P.), B., 18.
- Monack, A. J. See Parmelee, C. W.
- Monasterio, G., nature of the liver-fat and subcutaneous fat produced in animals kept in low-pressure atmospheres, A., 636.
- action of photodynamic substances on carbohydrate metabolism, A., 1618.
- Moncorps, C., and Bohnstedt, R., pharmacology of ointments. V. The sulphate content and transmineralisation process in human blood after use of sulphur ointment, A., 1213.
- Moncrieff, R. W. See Brit. Celanese, Ltd.
- Moncrieff, Ltd., J., and McNish, A. F., glass-furnace for hearths, (P.), B., 1153.
- Mond, A. L. See I. G. Farbenind. A.-G.
- Mond, A. W., ruthenium acetates, A., 891.
- Mondain-Monval, P., and Galet, P., anomalies in the physical properties of the amorphous state; amorphous sulphur and selenium, A., 281.
- Mondain-Monval, P., Job, R., and Galet, P., absorption of luminous radiations by liquid sulphur, A., 1075.
- Mondain-Monval, P., and Quanquin, B., temperature of spontaneous inflammation of gaseous mixtures of air and saturated hydrocarbons; influence of pressure and preliminary heating, A., 167.
- spontaneous ignition of mixtures of air and hydrocarbons; influence of concentration, A., 167.
- formation of peroxides during direct oxidation of hydrocarbons by air. II., A., 1157.
- direct oxidation of hydrocarbons by air, B., 803.
- Mondain-Monval, P. See also Dumanois, P.
- Moneta, G., vessels of the autoclave type, (P.), B., 932.
- Monforte, F. See De Fazi, R.
- Monguillon, P. See Lemoigne, M.
- Monhaupt, M., analysis of egg yolk, B., 1088.
- Monheim, J. See Lange, E.
- Monikowski, K., conversion of superphosphate into ammonium phosphate, B., 658.
- Monk, G. S. See Mulliken, R. S.
- Monk, R. H., Firing, L., and Irwin, J., production of alkaline-earth titanates, (P.), B., 1151.
- Monk, R. H., and Irwin, J., production of amphoteric hydrated oxides of metals by hydrolysis, (P.), B., 661, 862*.
- Monkhouse, A. C., report on visit to Germany to inspect methods adopted for recovery of phenols from ammonia liquors and kindred subjects, B., 174.
- Monkman, R. J. See McLennan, J. C.
- Monnier, A., drying of tiles, bricks, or other ceramic products, (P.), B., 990.
- Monnier, R. See Briner, E.
- Monroe-Louisiana Carbon Co. See Matlock, C.
- Monsanto Chemical Works, production of caffeine [from theobromine], (P.), B., 1131.
- Monsch, A., electrically heated m.p. apparatus, A., 1152.
- Montag, P., making "viscosines" from lubricating oil bottoms, B., 6.
- Montagne, (Mlle.) M., action of organo-magnesium compounds on aliphatic dialkylamides, A., 460.
- Montagne, (Mlle.) M., and Casteran, B., action of potassium hypobromite on some α -trisubstituted amides, A., 1170.
- Montan, Inc. See Coolidge, J. R.
- Montan- & Industriewerke vorm. J. D. Starck, neutral phosphate, (P.), B., 187.
- Montan- & Industriewerke vorm. J. D. Starck. See also Kanhäuser, F.
- "Montecatini" Società Generale per l'Industria Mineraria ed Agricola, and Fauser, G., manufacture of ammonia salts, (P.), B., 459.
- Montels, A., fuel composition, (P.), B., 850.
- Montequi, F., preparation of 2:3-dimethoxyphenylacetoneitrile, A., 87.
- Montequi, R., reaction of molybdenum with xanthates; molybdenyl ion, A., 1028.
- Montgomerie, J. A., production of a bituminous composition, (P.), B., 47.
- Montgomery, C. G., magnetic isotropy of copper crystals, A., 1354.
- Montgomery, E. M., and Hudson, C. S., relations between rotatory power and structure in the sugar group. XXVII. Synthesis of a new disaccharide ketose (lactulose) from lactose, A., 894.
- Montgomery, S. A. See Lane, R. S.
- Montgomery, W., waste waters from beet-sugar factories and suggestions for their disposal, B., 478.
- Monti, L., condensation products of benzhydroxymethylamide, A., 598.
- preparation of chalkones, A., 605.
- Monti, L. See also Bargellini, G.
- Montignie, E., sensitive reagent for molybdate ion, A., 313.
- constitution of cholesterol. XI. Action of persulphuric acid, A., 338.
- constitution of cholesterol. XI., A., 1036.
- Montigue, L. H. See Case, G. O.
- Montonnier, P., treatment of [lead-zinc] ores, (P.), B., 198.
- Monypenny, (Miss) M. W., and Russell, Alfred, fluorescence spectra of the vapours of fluorobenzene and *p*-fluorotoluene, A., 16.
- Moers, C. A., comparative [fertiliser] values of different phosphates, B., 525.
- Moock, H. W., micro-apparatus for determination of alkali reserve, A., 1201.
- Moock, H. W. See also Dirken, M. N. J.
- Moon, P. B. See Oliphant, M. L. E.
- Moon, P. G. G., the Burkheiser [gas]-purification process, B., 172.
- Moore, B., and Mellor, J. W., manufacture of felspathic or hard porcelain from British raw materials, B., 989.
- Moore, B. See also Dunn, J. T.
- Moore, B. H. See Clarke, W. G.
- Moore, B. J., Campbell, A. J., and Gibbons Bros., Ltd., electrically heated [tunnel] kiln, (P.), B., 1078*.
- Moore, D. L. R., Breenkridge, M., and Koser, H. C., physiological behaviour of glyceryl trimargarate, A., 1613.

- Moore, E. E., determination of dextrose in concentrated solutions, A., 1411.
- Moore, E. E., and Moore, M. B., pollen and pollen extracts. I. Distribution of nitrogen extracted by various solvents, A., 1484.
- Moore, E. W. See Fair, G. M.
- Moore, F., self-balancing potentiometer, A., 567.
- Moore, F. G., and Dains, F. B., synthesis of thiazan derivatives; reactivity of various alkyl bromides with diphenylthiocarbamide, A., 1049.
- Moore, H. B., muds of the Clyde Sea area. I. Phosphate and nitrogen contents, A., 448.
- Moore, H. B., and Neill, R. G., instrument for sampling marine muds, A., 446.
- Moore, J. See Allan, H. L.
- Moore, J. W. See Imperial Chem. Industries, Ltd.
- Moore, L. P., and Cuthbertson, A. C., improved thermionic valve falling-ball viscosimeter, A., 1550.
- Moore, M. B. See Moore, E. E.
- Moore, N. S., and Van Slyke, D. D., relationship between the density and protein content of the plasma and oedema in nephritis, A., 1469.
- Moore, R. B. See Allen, F. J.
- Moore, R. L. See Thermatomic Carbon Co.
- Moore, S., distillation of coal, shale, peat, wood, and other fragmentary solid materials, (P.), B., 497.
- Moore, T., vitamin-A and carotene. II. Vitamin-A activity of red palm-oil carotene. III. Absence of vitamin-D from carotene. IV. Effect of various dietary modifications on the vitamin-A activity of carotenes, A., 255.
- colorimetric determination of vitamin-A, A., 647.
- vitamin-A and carotene. V. Absence of the liver-oil vitamin-A from carotene. VI. Conversion of carotene into vitamin-A *in vivo*, A., 962.
- Moore, W. A. See Rubber Service Labs. Co.
- Moore, W. C. See Pethybridge, G. H.
- Moore, W. D. See Barr, C. D.
- Moore, W. D., and American Cast Iron Pipe Co., hot-blast cupolas, (P.), B., 378.
- Moore, W. E., and Pittsburgh Research Corporation, electric furnace method [for carburising metallic charges], (P.), B., 1159.
- Moore & Co., Ltd., C., Shaw, W. M., and Trantom, W., drying of granular materials, (P.), B., 932.
- Moore Fabric Co., drying and finishing machine for fabrics in long lengths, (P.), B., 987.
- Moore, J. See Vegetable Oil Machinery Synd., Ltd.
- Moorman, A. R. See Carpenter, I. C.
- Moorwoods, Ltd., and Wheale, H., electric [baking] ovens, (P.), B., 870.
- Mooy, H. H. See De Smedt, J., and Keesom, W. H.
- Moracci, E., substances producing hyperglycemia and hypoglycemia occurring in blood of dogs, A., 504.
- Morachevski, Y. A. See Urazov, G. G.
- Moraczewska, (Mle.) M., new band group in the ultra-violet absorption spectrum of selenium vapour, A., 651.
- absorption spectrum of selenium vapour, A., 830.
- Moraczewski, W. von, and Grzycki, S., swelling of gelatin in acid and salt solutions. II, A., 1118.
- Morales, E. See Batuecas, T.
- Moran, T., frozen state in mammalian muscle, A., 1464.
- Moran, T. See also Smith, E. C.
- Morani, V., detection of added mineral acid in wines by means of the potentiometer, B., 390.
- Morani, V., and Marimpietri, L., buffering power of wines; keeping and plastering, B., 1087.
- Moratschevski, J. V., chemical composition of the Solikamsk salt deposits, A., 1015.
- Morávek, V. See Calábek, J.
- Morawe, K., softening of water by base exchange, (P.), B., 796.
- Morazain, J. S. See Hibbert, H.
- More, A., meniscus corrections involved in the calibration of graduated tubes, A., 55.
- [separation of the] sterols in butter [by the van Sillevoldt process], B., 214.
- Moreau, L., and Vinet, E., preservation of sweet white wines, B., 1043.
- Moredod, R., [detection of] wines manufactured from dried grapes, B., 212.
- Morel, R. See Loiseleur, P.
- Moretti, P., and Muscolino, G., action of certain carbohydrates on the toxicity of potassium cyanide, A., 1618.
- Morey, G. W., analytical methods in phase-rule problems, A., 1121.
- devitrification of soda-lime-silica glasses, B., 1152.
- effect of alumina on the devitrification of a soda-lime-silica glass, B., 1152.
- effect of magnesia on the devitrification of soda-lime-silica glass, B., 1152.
- Morey, G. W., Kracek, F. C., and Bowen, N. L., system $K_2O-CaO-SiO_2$, A., 1374.
- Morey, G. W. See also Kracek, F. C., and Roberts, H. S.
- Morgan, A. F., and Field, A., vitamins in dried fruits. II. Effect of drying and of sulphur dioxide on vitamin-A content of fruits, B., 1003.
- Morgan, A. F., and Garrison, E. A., effect of vitamin-D and of reaction of diet on response to parathyroid extract, A., 506.
- Morgan, A. F., Strauch, C. M., and Blume, F., nature and biological availability of almond carbohydrates, A., 368.
- Morgan, E. See Brit. Cast Iron Res. Assoc.
- Morgan, E. J., xanthine oxidase in the avian embryo, A., 814.
- Morgan, G. T., catalytic reactions at high pressures, A., 867.
- formaldehyde condensations with aromatic compounds, B., 600.
- Morgan, G. T., and Burstall, F. H., heterocyclic systems containing selenium. III. *cyclo*Selenopropane, A., 1051.
- Morgan, G. T., and Cook, J. W., aromatic stibinic acids containing phenyl and quinolyl radicals, A., 797.
- Morgan, G. T., and Coulson, E. A., synthesis of anthracene homologues. II. 2:3:6-Trimethylantracene, A., 80.
- Morgan, G. T., and Davies, G. R., antimonial analogues of the carbazole series, A., 797.
- Morgan, G. T., and Pratt, D. D., obtaining products from low-temperature and other tars and pitches, (P.), B., 598.
- Morgan, G. T., Sinnatt, F. S., and Pratt, D. D., treatment of tars, (P.), B., 978.
- Morgan, G. T., and Taylor, R., ethyl alcohol, a product of high-pressure synthesis, A., 1018.
- Morgan, G. T., and Walls, L. P., pyrolysis of diazoamino-*p*-toluene, A., 1032.
- preparation of *o*- and *p*-xenylamines (aminodiphenyls), B., 600.
- Morgan, H., coal and refuse tester, (P.), B., 1099.
- Morgan, H. H. See Imperial Chem. Industries, Ltd.
- Morgan, H. J. See P. L. & M. Co.
- Morgan, J. D., and Doherty Research Co., bonded refractory, (P.), B., 13.
- Morgan, J. D. See also Bendixen, N.
- Morgan, J. L. R., and Pyne, H. R., solubility relations in gas-liquid systems. I. New apparatus for determining gas solubilities. II. Solubility and rate of solution of oxygen in water, A., 1106.
- solubility relations in gas-liquid systems. III. Solubility of oxygen in benzene, A., 1362.
- Morgan, J. L. R., and Richardson, A. H., solubility relations in gas-liquid systems. IV. Solubility of oxygen in water as found by an analytical method, A., 1511.
- Morgan, J. S., fractional adsorption of gases, B., 44.
- manufacture of concrete, (P.), B., 614.
- Morgan, M. F., factors affecting the estimation of lime requirement from p_H values, B., 578.
- spot-plate test for nitrate-nitrogen in soil and other extracts, B., 680.
- Morgan, R. H., effect of temperature on the sulphur dioxide content of corn syrup in mixtures of sugar and corn syrup, B., 962.
- Morgan, W. R., method for determining the loss of weight of clays during firing, B., 947.
- Morgan, W. T. J. See Robison, R.
- Morgan & Wright, and Gibbons, W. A., manufacture of rubber articles, (P.), B., 728.
- Morgan & Wright, and Hazell, E., manufacture of rubber articles, (P.), B., 521.
- Morgan & Wright, and Keen, A. W., manufacture of rubber articles, (P.), B., 521.
- Morgulis, S., inactivation of catalase by ultra-violet irradiation at different p_H , A., 955.
- Morgulis, S. [with Shumaker, L.], inactivation of catalase. II. Inactivation by ultra-violet irradiation at varying p_H , A., 640.
- Morgulis, S., and Perley, A. M., calcium of cerebrospinal fluid and of blood-serum with reference to parathyroid hormone, A., 1319.
- Mori, M., enzymes of silkworms. I, A., 1057.
- Mori, S., and Reiss, M., ovarian hormone and blood-cholesterol, A., 378.
- Mori, T. See Levene, P. A.
- Morikawa, K. See Tanaka, M.

- Morimoto, *M.* See Iwatsura, *R.*
- Morin, *R. L. M.*, preparation of tapioca and apparatus therefor, (P.), B., 684.
- Morio, *S.*, mesaconitine, a second new *Aconitum* alkaloid, A., 228.
- Morio, *S.* See also Majima, *R.*
- Morioka, *I.*, photographic reproduction of images [of three-dimensional objects], (P.), B., 265.
- Morishata, *H.*, detoxicating hormone ["yakriton"] of the liver. XVI. Prophylactic effect of yakriton against ammonium carbonate convulsions, A., 1624.
- Morison, *C. G. T.*, composite character of the soil profile, its relation to soil classification, B., 71.
- Morison, *C. G. T.* See also Coles, *H. G.*
- Moritz, *A. R.*, and Krenz, *C.*, relation of the fat-soluble vitamins (A and D) to the development of experimental rickets in rabbits, A., 963.
- Moritz, *R.*, improvements in the manufacture of chamber sulphuric acid with gases rich in nitrogen oxides, B., 416.
- Mork, *H. S.*, and Delaware, Lackawanna & Western Coal Co., method of identifying fuel, (P.), B., 803.
- Morland & Impey, Ltd., and Rendall, *A. G.*, instrument for measuring humidity, (P.), B., 171.
- Morlet, *E.*, copper-aluminium [alloys] containing manganese, tin, or cobalt, B., 244.
- Morley, *A. M.*, structure of the tungstic acids, A., 1262.
- Morozewicz, *J.*, mariupolite and its related rocks, A., 1267.
- Morozov, *G. G.* See Krivolutskaya, *N. S.*
- Morozov, *I. S.* See Gerasimov, *A. F.*
- Morrell, *C. A.* See Wakeman, *A. M.*
- Morrell, *J. C.*, and Egloff, *G.*, cracking of tar acids from coal, B., 594.
- Morrell, *J. C.*, Egloff, *G.*, and Universal Oil Products Co., manufacture of [synthetic] resins, (P.), B., 997.
- Morrell, *J. C.*, and Faragher, *W. F.*, cracking of tars from cannel coal, B., 45.
- Morrell, *J. C.*, and Universal Oil Products Co., refining of petroleum oils; treatment of hydrocarbons, (P.), B., 134.
- vapour fractionation, (P.), B., 590.
- apparatus for vapour fractionation, (P.), B., 971.
- Morrell, *J. C.* See also Dubbs, *C. P.*, Egloff, *G.*, and Faragher, *W. F.*
- Morrell, *R. S.*, and Marks, *S.*, polymerisation of drying oils, B., 517.
- Morrill, *E.* See Kritchevsky, *V.*, and Wilder, *F. L.*
- Morris, *E. H.*, treatment of soap [with rays from mercury-vapour lamps], (P.), B., 569.
- Morris, *H. E.* See Boomer, *E. H.*
- Morris, *H. J.* See Allison, *F. E.*
- Morris, *H. N.*, treatment of water-absorbing materials to render them non-absorbent, acid-resisting, and alkali-resisting, (P.), B., 763.
- Morris, *J. P.* See Rosedale, *J. L.*
- Morris, *O. M.* See St. John, *J. L.*
- Morris, *S.*, Callaghan, *E. B.*, and Dunlap, *L.*, cyanogen iodide as impurity in iodine; its detection and elimination, A., 1008.
- Morris, *S. G.* See Brown, *J. B.*
- Morris, *V. N.*, and Street, *J. N.*, permeability of rubber to air. I. Effect of temperature, pressure, and humidity, B., 112.
- Morris-Jones, *W.* See Howells, *E. V.*
- Morrison, *D. B.*, and Nash, *T. P.*, copper content of infant livers, A., 1465.
- Morrison, *F. R.*, ambergis and how to recognise it, B., 793.
- Morrison, *F. R.* See also Penfold, *A. R.*
- Morsch, *K.*, action of chloral hydrate and hydroxylamine hydrochloride on the isomeric phenylenediamines, A., 787.
- Morse, *E. H.*, production of regenerated cellulose structures [from viscose], (P.), B., 99.
- Morse, *H. W.*, periodic precipitation in aqueous solutions, A., 1117.
- Morse, *P. M.*, quantum mechanics of electrons in crystals, A., 976.
- Morse, *P. M.* See also Stueckelberg, *E. C. G.*
- Morse, *W.*, chemical constitution of *Pectinatella*, A., 802.
- Morse, *W. G.*, recovering oil and grease [from water, etc.], (P.), B., 894.
- Mortimer, *B.*, and Ivy, *A. C.*, pancreas. VII. Mellanby procedure for isolation and purification of secretin, A., 822.
- Mortimer, *J. E.*, apparatus for converting carbon dioxide or other material into a solid, (P.), B., 144.
- Mortland, *H. E.*, and Pevely Dairy Co., treatment of milk, (P.), B., 1045.
- Morton, *A. A.*, and Stevens, *J. R.*, benzoin condensation, A., 918.
- Morton, *C.*, glass electrode system, A., 1009.
- Morton, *C. D.*, and Morton System, Inc., method of filtering, (P.), B., 1135.
- Morton, *E. A.* See Hazeley, *E.*
- Morton, *H. A.*, rubber compositions [anti-agers] and their manufacture, (P.), B., 1165.
- Morton, *J.*, manufacture of chenille and other fabrics, (P.), B., 185.
- manufacture of colour-printed fabrics, (P.), B., 238*.
- Morton, *J.*, Harris, *J. E. G.*, Jones, *J. I. M.*, and Morton Sundour Fabrics, Ltd., manufacture of coloured fabrics; [application of vat dye resists to yarn before weaving], (P.), B., 762.
- Morton, *J.*, Harris, *J. E. G.*, and Morton Sundour Fabrics, Ltd., manufacture of coloured fabrics, (P.), B., 815.
- Morton, *J.*, Jones, *J. I. M.*, and Standfast Dyers & Printers, Ltd., dyeing and printing [over-printing with soluble esters of leuco-vat dyes], (P.), B., 280.
- Morton, *R. A.*, and Heilbron, *I. M.*, vitamin-A of butter, A., 1321.
- Morton, *R. A.*, Heilbron, *J. M.*, and Spring, *F. S.*, absorption spectra in relation to vitamin-A, A., 380.
- Morton, *W. A.*, glass-melting apparatus, (P.), B., 327.
- gas-fired furnace, (P.), B., 844.
- [glass-annealing] furnaces, (P.), B., 990, 1153.
- Morton Sundour Fabrics, Ltd. See Morton, *J.*
- Morton System, Inc. See Morton, *C. D.*
- Mortreux, *A.*, heat-exchanging appliances, (P.), B., 1096.
- Móry, *B.*, decomposition of phenols with phosphoric acid, B., 175.
- structure of the ash of coal, B., 225.
- Móry, *B.*, and Péter, *J.*, removal of the ash constituents of coal by density separation, B., 225.
- Mosby, *D. H.* See Brit. Celanese, Ltd.
- Moseley, *A. G., jun.* See Hendricks, *B. C.*
- Moser, *F. R.*, treatment of [asphalt] dispersions, (P.), B., 704*.
- Moser, *G. H.* See Wessely, *F.*
- Moser, *H.*, measurement of temperature with the platinum-resistance thermometer to 1100°, A., 1507.
- Moser, *L.*, and Blaustein, *W.*, determination and separation of rare metals from other metals. XVII. Precipitation of tungsten with tannin and antipyrine, and its separation from ter- and quadri-valent metals, from tin, and from silicic acid, A., 312.
- Moser, *L.*, Neumayer, *K.*, and Winter, *K.*, determination and separation of rare metals from other metals. XIX. Separation of titanium from other elements, A., 727.
- Moser, *L.*, and Reif, *W.*, determination and separation of rare metals from other metals. XVI. Separation of thallium from ter- and quadri-valent metals, A., 312.
- micro-determination of thallium and lead, A., 1545.
- Moser, *L.*, and Siegmann, *F.*, determination and separation of rare earths from other metals. XVIII. Determination of indium and its separation from monoxides and sesquioxides, A., 564.
- Moser, *L.*, and Zombory, *L. von*, [rapid determination of various elements after precipitation by the classical methods], A., 1149.
- Moses, *F. G.*, Hess, *R. W.*, Perkins, *R. L.*, and Barrett Co., separation of minerals by flotation, (P.), B., 773.
- Mosettig, *E.*, and Burger, *A.*, scission of the methylenedioxy-group with aluminium bromide, A., 1290.
- ring enlargement with diazomethane in the hydroaromatic series, A., 1290.
- Mosettig, *E.*, and Kamp, *J. van de*, syntheses in the phenanthrene series. I. Acetylphenanthrenes, A., 1438.
- Mosharrafa, *A. M.*, wave mechanics and the dual aspect of matter and radiation, A., 132.
- Moshkin, *A.*, catalyst for hydrogenating oils, B., 154.
- Mosler Safe Co., heat-insulating compositions for safes, etc., (P.), B., 915.
- Moss, *E. G.* See Garner, *W. W.*
- Moss, *H.* See Mardles, *P. W. J.*
- Moss, *W. H.*, and Celanese Corporation of America, manufacture of soluble and fusible synthetic resin, (P.), B., 997.
- Mosser, *A.*, technique of practical lubrication, B., 85.
- Mosses, *A. N.* See Bennett, *G. M.*
- Moszew, *J.* See Dziewonski, *K.*
- Motai, *T.*, lipase of the tonsils, A., 1609.
- Mothes, *K.* See Schmalfuss, *K.*
- Motlik, *V.*, analysis of sodium bisulphite and of its compounds with formaldehyde, B., 658.
- Motorenfabrik Deutz Akt.-Ges., regulation of gas-producer plants, (P.), B., 178.

- Mott, G. T., apparatus for heat exchanging, (P.), B., 267.
- Mott, N. F., scattering of electrons by gold, A., 129.
wave mechanics of α -ray tracks, A., 131.
collision between two electrons, A., 269.
scattering of electrons by atoms, A., 974.
- Mott, O. E. See Anglo-Persian Oil Co., Ltd.
- Mott, R. A., hardness, abrasability, and reactivity of coke, B., 1009.
impact hardness, abrasion hardness, and reactivity of coke, B., 1052.
- Mottier, M. See Briner, E.
- Mouchel & Partners, Ltd., L. G., and Gerard, M. E., water-cooling towers, (P.), B., 690.
- Mouchel & Partners, Ltd., L. G., and Gueritte, A. T. J., [reinforced concrete] construction of water-cooling towers, (P.), B., 846.
- Moufang, F., means for maintaining constant pressures, liquid level, specific gravities, etc., (P.), B., 308.
- Mougeot, A. See Loeper, M.
- Moulton, F. See Ball, F. L.
- Moulton, H. F., and Tschudin, E., manufacture of nitrocellulose, (P.), B., 184.
- Mount, W. D., and Forrest, K. A., continuous sulphate process, (P.), B., 858.
- Mount, W. D. See also Munro, W. C.
- Moureu, C., and Dufraisse, C., organic compounds with reversible oxidisability, A., 81.
- Moureu, C., Dufraisse, C., and Drisch, N., mechanism of the formation of rubrene: new synthesis, A., 465.
- Moureu, C., Dufraisse, C., and Lotte, P., luminescence phenomena of the satellites of rubrene; two phosphorescent hydrocarbons; the so-called "brown" and the yellow substance, A., 335.
rubrene. XIII. Preparation of rubrene. XIV. Yellow and brown satellite hydrocarbons of rubrene, A., 594.
ageing of rubber and its retardation by the surface application of antioxidants; diffusion process, B., 625.
- Mourgeon, L. See Vieu, C.
- Mourot, G. See Champagne, M.
- Mouscadet, G., purification of boiler feed-waters in sugar factories and distilleries, B., 1093.
- Mousseron, M., micro-determination of calcium, A., 1543.
- Mousseron, M., and Bouissou, N., micro-determination of calcium ions, A., 1011.
- Mousseron, M. See also Astruc, A., and Godchot, M.
- Moutonniere, P., treatment of ores containing zinc carbonate, (P.), B., 150.
- Mouzon, J. C. See Sutton, R. M.
- Moxham, A. J., and Electro Co., treatment of siliceous minerals, (P.), B., 765.
- Moxham, A. J., and Lafey, J. P., treatment of greensand, etc., (P.), B., 188.
- Moyat, E., production of aluminiferous cement, (P.), B., 770.
- Moycho, W., pigment of *B. prodigiosus*, A., 1478.
- Moyer, A. J. See May, O. E.
- Moyer, W. W. See Bock, L. H., and Conant, J. B.
- Mozar, A., electrolytic deposition of gold and silver, (P.), B., 953.
electrolytic separation of copper, (P.), B., 1159.
- Mrozowski, S., causes of the mercury bands, A., 389.
efficiency of quenching collisions and radius of the excited mercury atom, A., 515.
dissociation energy of Zn_2 molecules, A., 651.
band spectra of zinc and cadmium vapours, A., 970.
Zeeman effect and the absorption coefficients of the hyperfine structure components of the mercury resonance line, A., 1490.
- Muchin, G. E., and Zilberfarb, M. I., chemical kinetics in mixtures of solvents. VII. Reaction between pyridine and allyl bromide in ethyl benzoate, A., 301.
- Muchka, J., purification of water, (P.), B., 796.
- Mudd, S. See McCutcheon, M.
- Mudge, W. A., and International Nickel Co., Inc., manufacture of heat-treated copper-nickel-aluminium alloys, (P.), B., 565*.
- Mück, M. W. See Mannich, C.
- Muehlberger, C. W. See Crandall, L. A.
- Mühlbock, O. See Rona, P.
- Mühlenbruch, W. See Minkowski, R.
- Mühlhäuser, W. See Curtius, T.
- Mühlhoff, W., activity of potassium and rubidium determined by means of the electron counter, A., 1496.
- Mühlroth, O. See Wrede, F.
- Mühlschlegel, H. See Brigl, P.
- Müller, tar roads for average and heavy traffic, B., 558.
- Müller, A. See Glücksmann, E.
- Müller, A. (Danzig). See Garre, B., and Wartenberg, H. von.
- Müller, A. (Frankfurt). See Magnus, A.
- Müller, Adolf, and Neumann, S., production of gum from locust beans, (P.), B., 737.
- Müller, Alex., crystal structure of the normal paraffins at temperatures ranging from that of liquid air to the m. p., A., 844.
- Müller, Alexander, compounds of hydroxyanthraquinones with acetylated sugars, A., 71.
- Müller, Alexander. See also Helferich, B.
- Müller, Anton. See Wever, F.
- Müller, Arno, influence on the softening of peas of calcium and magnesium hardness of the cooking water, B., 529.
- Müller, Artur. See Maurer, K.
- Müller, B., drying apparatus, (P.), B., 169.
- Müller, Bruno, fermentation of cacao beans; further preparing cacao beans after fermentation, (P.), B., 792.
- Müller, Carl (Bern), influence of liver preparations on the metabolism of men during work, A., 253.
- Müller, Carl (Mannheim). See I. G. Farbenind. A.-G.
- Müller, C. E. See Gen. Aniline Works, Inc.
- Müller, C. H. F., incandescence cathode, (P.), B., 246.
- Müller, C. J. See Gen. Aniline Works, and Grasselli Dyestuff Corp.
- Müller, C. W. See "Universelle" Cigarettenmaschinen-Fabr. J. C. Müller & Co.
- Müller, D., carbon dioxide assimilation of arctic plants and the dependence of the assimilation on the temperature, A., 822.
- Müller, E. See Wülfing, R. von.
- Müller, Emil, and Pucherna, J., determination of the volume and sp. gr. of the mark of the sugar beet, B., 75.
- Müller, Emil. See also Lange, Willy.
- Müller, Erich, and Essin, O., theory of the electro-deposition of chromium from aqueous chromic acid solutions. IV., A., 304.
- Müller, Erich, and Kogert, H., electrometric analysis of nitrating acid, A., 726.
- Müller, Erich, and Schwabe, K., oxidation of aqueous ethyl alcohol by molecular oxygen catalysed by platinum metals, A., 1132.
- Müller, Erich, and Stein, Wilhelm, potentiometric determination of platinum with titanous chloride and with stannous chloride, A., 728.
potentiometric determination of gold and platinum, A., 1013.
- Müller, Ernst, and Luber, A., dissociation of carbonic acid and its action on metallic nickel under pressure, A., 440, 995.
- Müller, Eugen. See Page, I. H., and Schultze, G.
- Müller, F. See Siemens-Schuckertwerke A.-G.
- Müller, Friedrich, corrosion of metals, B., 422.
- Müller, Friedrich, and Riefkohl, A., significance of the anomalous behaviour of palladium anodes in solutions containing chlorides, A., 707.
- Müller, Fritz. See Rothlin, E.
- Müller, Georg. See Neumann, B., and Zipperer, L.
- Müller, Gustav, miners' safety lamps, (P.), B., 704.
- Müller, H. See Houdremont, E.
- Müller, Heinz. See Sieverts, A.
- Müller, Helmut, emanation method in the study of salts of unstable surface, A., 1340.
- Müller, Helmut. See also Hahn, O.
- Müller, Hermann, and Akt.-Ges. Cillander, production of stiff fabrics which withstand washing, (P.), B., 985*.
- Müller, Horst, and Sack, H., electric moments of certain molecules, A., 1347.
- Mueller, H. A., and Aktiebolaget Ferriconcentrat, enrichment of iron ore, blast-furnace flue dust, burnt pyrite, purple ore, etc., (P.), B., 107*.
- Müller, H. C., [action of] zeotokol and phosphoric acid [on plant growth], B., 208.
- Müller, J., distillation and condensation of solid and liquid colloidal mixtures, (P.), B., 177.
fractional dry distillation of organic materials, (P.), B., 311.
- Müller, Joachim. See Gen. Aniline Works, Inc.
- Müller, Joh. See Heiduschka, A.
- Müller, Josef (Münschen). See Täufel, K.
- Müller, Josef (Weissenstein), and Schumacher'sche Fabr. G.m.b.H., porous moulded body for use in diffusion, filtration, etc., and its manufacture, (P.), B., 399.
- Müller, Julius. See I. G. Farbenind. A.-G.
- Mueller, J. H. See Pender, H.

- Müller, J. J. See Schumacher, F. G.
 Müller, K., and Fringsheim, P., optical method for measuring the mercury content of air, A., 727.
 Müller, L. See Feussner, O.
 Müller, P. See Goy, S.
 Müller, Pius, unsaturated fatty acids of human liver. I.—III., A., 322.
 Müller, P. H., crystallisation of salts, (P.), B., 418.
 Müller, R. K. See I. G. Farbenind. A.-G.
 Müller, R. L. See Sehtschukarev, S. A.
 Müller, W., and Lippe, Olga (Prinzessin zur), [hard tungsten-chromium-cobalt-iron] alloy, (P.), B., 198.
 Müller, Werner. See Clar, E., Gen. Aniline Works, Inc., and Reddelien, G.
 Müller, Wilhelm (Giessen), rocks of Gomera, Canary Islands, A., 316.
 Mueller, Wilhelm (Gleiwitz), regenerative coke ovens, (P.), B., 131.
 Mueller, W. H. See Hatcher, W. H.
 Müller, W. J., theoretical significance of the passivity of metals, A., 799.
 theoretical significance of passivity, A., 1257.
 theory of surface polarisation, A., 1377.
 theory of passivity. XII. Passage of current through anodes covered with an insoluble surface layer, A., 1527.
 Müller, W. J., and Courard, W., determination of the reducing power [of coke, etc.] by Agde and Schmitt's method, B., 647.
 Müller, W. J., and Hiller, H., preparation of alumina, (P.), B., 818.
 Müller, W. J., and Holleck, L., theory of passivity. VII. Anodic behaviour of copper in electrolyte solutions containing sulphuric acid. VIII. Anodic behaviour of zinc in electrolyte solutions containing sulphuric acid, A., 298.
 Müller, W. J., and Konopicky, K., moto-electrical effect [of various metals], A., 165.
 theory of the valve electrode; anodic behaviour of aluminium, A., 165.
 theory of passivity. IX. Passivity of lead in sulphuric acid, and theory of forming of the lead anode. X. Variation of autopassivity with time, A., 298.
 Müller, W. J., and Machu, W., theory of passivity. XI. Anodic behaviour and passivity of iron in sodium sulphate solutions, A., 298.
 Müller, W. J. See also Günther-Schulze, A.
 Müller-Cunradi, M. See I. G. Farbenind. A.-G.
 Müller Ges.m.b.H., P., purification of boiler-feed water, (P.), B., 488.
 Müllers, P., dolomitisation of Middle Devonian [limestone] in the Eifel, A., 315.
 Münch, C., manufacture of [cellulose ester] films [for tipping cigarettes], (P.), B., 985.
 Münch, E. See I. G. Farbenind. A.-G.
 Münch, H., mechanism of urease activation, A., 642.
 Münch, H. See also Ambros, O.
 Münch, S. See I. G. Farbenind. A.-G.
 Münch, W. See Braun, J. von.
 Münchberg, F., determination of chlorine and sugar in small quantities of milk, B., 739.
 content of salt in cheese, B., 837.
 Münchmeyer, G. See Schlinck, J.
 Mündel, F. See Braun, H.
 Münster, W. See Wieland, H.
 Münter, F., potassium nitrate [as a fertiliser], B., 162.
 top-dressing of potatoes with lime, B., 581.
 Münz, W., tannins in [leaves of] chestnut and Sicilian sumac, B., 573.
 Münzberg, H. See Nolte, O.
 Münzel, H. See I. G. Farbenind. A.-G.
 Mners, M. M. See Brady, O. L.
 Müser, A., apparatus for the wet purification or absorption of gases, (P.), B., 170.
 Muffet, E. See Forcher, C.
 Muhlbauer, F. See Hieber, W.
 Muhlenberg, F. B., treatment of petroleum products, (P.), B., 701.
 Muhlert, F., recovery of by-product nitrogen and sulphur in the coke-oven and gas industries, B., 129.
 Muir, J., and Wilkinson, G. H., manufacture of [non-curling] adhesive paper, (P.), B., 761*.
 Mukai, S., potentiometric determination of barium, lead, and sulphate, A., 562.
 Mukherjee, B. C. See Ghosh, P. N., and Ray, B. B.
 Mukherjee, J. N., "chemical theory" of antagonistic effect of ions in solution and at an interface; general theory of such mutual effects, A., 153.
 Mukherjee, J. N., and Ganguly, S. C., effect of dilution on the coagulation of arsenious sulphide hydrosols in its relation to the arsenious oxide content, A., 1115.
 Mukherjee, J. N., and Kumar, K. K., measurements of E.M.F. of the calomel electrode against the hydrogen electrode at low concentrations of hydrochloric acid, A., 998.
 Mukherjee, L. N., and Chatterji, A. C., formation of Liesegang rings and the peptisation effect of the gel, A., 417.
 Mukherjee, P. C. See Ray, P. C.
 Mukherji, A. See Sen, R. N.
 Mukherji, B. C., band spectrum of nitrogen excited by a high-frequency discharge, A., 1328.
 Mukherji, S. N., influence of dilution on the stability of ferric hydroxide hydrosols, A., 1116.
 Mullard Radio Valve Co., Ltd., and Krol, B., [filaments for] electron-discharge tubes or thermionic valves, (P.), B., 566.
 Muller, J. F., value of raw sewage sludge as a fertiliser, B., 162.
 Mulligan, F., manufacture of a cement or plaster from gypsum, (P.), B., 771*.
 Mulliken, R. S., electronic states in the visible halogen bands, A., 1328.
 notation for spectra of diatomic molecules, A., 1331.
 electron states and chemical combination in diatomic molecules, A., 1340.
 Mulliken, R. S., and Monk, G. S., fine structure and Zeeman effects in helium band lines, A., 263.
 Mullin, C. E., synthetic fibre industry of America, B., 653.
 influence of p_H on dyeing phenomena. I. Uneven dyeing of viscose. II. Influence of p_H , salt, and variations of temperature in the dyeing of viscose with direct dyes. III. Dyeing viscose, cotton, and mercerised cotton in the same bath. IV. Rinsing of dyed cotton. V. Light-fastness of dyed cotton, B., 901.
 Mulock, F. S., and U.S. Smelting, Refining, & Mining Co., treating [lead sulphate] ores, etc., (P.), B., 669.
 Multer, H. J. See Gard, E. W.
 Multi-Color Dyers (1920), Ltd. See Howard, S.
 Mumford, S. A., and Phillips, J. W. C., parachor of azo-compounds, A., 1175.
 Mummery, W. R., and Bishop, F., solubility method of classifying acid caseins, B., 789.
 Munch, J. C., bio-assay of capsicum, U.S.P. X., B., 1046.
 Munch, J. C., and Deckert, W. A., bio-assay of adrenaline-procaine mixtures, A., 961.
 Munch, J. C., and Hartung, W. H., amino-alcohols. III. Potentiation of the pressor action of adrenaline by arylpropanolamines, A., 961.
 Munch, J. C. See also Hartung, W. H., and Ward, J. C.
 Mund, W., appearance and disappearance of azeotropism in binary systems, A., 26.
 Mund, W., and Gillerot, R., chemical action of α -rays on nitric oxide, A., 175.
 Mund, W., and Vandamme, J., determination of contraction of a glass bulb as a result of differences in pressure, A., 535.
 Mund, W. See also Maisin, J.
 Munehisa, T., hypervitaminosis-A. I. Effects of an overdose of biosterol on the salt metabolism of rabbits, A., 380.
 metabolism of mineral substances of rabbits in hypervitaminosis-A, A., 963.
 Munehisa, T. See also Nagayama, T.
 Munesada, T., anatomy and microchemistry of the fruit of *Gardenia florida*, L., and other species of *Gardenia* and comparison with the fruit of *Randia dumetorum*, Lam. (*Gardenia dumetorum*, Roxb.), A., 382.
 Munger, H. P., Darrin, M., and Stegeman, G., phase diagram for the system sulphur-naphthalene and its relation to introfaction, A., 700.
 Munilla, A. See Fuentes, B. V.
 Munn, J. See Unique & Unity Cycle Co., Ltd.
 Munro, W. C., and Mount, W. D., continuous sulphate process [for pulping of wood], (P.), B., 1105.
 Munro, Ltd., R. W., and Wilson, J. F., apparatus for coating glass sheets, (P.), B., 714.
 Munroe, T. B., and Lathrop, E. C., [production of synthetic board from] fibrous product, (P.), B., 1105.
 Munsell, H. E., polished rice as source of vitamin-B, B., 346.

- Munsell, *H. E.*, and Kifer, *H. B.*, green tea as source of vitamin-C, A., 119.
- Munsell, *H. E.*, and Miller, *C. H.*, vitamin-C content of Japan green tea, A., 1222.
- Munsell, *H. E.* See also Kifer, *H. B.*
- Munson, *W. D.*, manufacture of chemical cotton, B., 653.
- Muntwyler, *E.* See Cannan, *R. K.*
- Murakami, *J.* See Kita, *G.*, Masuda, *S.*, and Nakashima, *T.*
- Murakami, *K.*, synthesis of methyl *n*-octyl ketone, A., 454.
- synthesis of quinoline derivatives, A., 616.
- pyrazolines derived from 4-hydroxy-3-methoxystyryl alkyl and phenyl ketones and β -4-hydroxy-3-methoxyphenylethyl *n*-2-octenyl ketone, A., 617.
- Murakami, *K.* See also Nomura, *H.*
- Murakami, *S.* See Randall, *M.*
- Murakami, *T.* See Kato, *Y.*
- Murakami, *Y.*, blast furnace, (P.), B., 20*.
- Murakawa, *G.*, influence of constituents of the culture medium on bacteria. I. Variability of the resistance and its relation to morphology and chemical composition, A., 502.
- Murakawa, *K.*, and Iwama, *T.*, Zeeman effect in neon, A., 1227.
- Murali, *A. L. von*, titration constants of multivalent substances, A., 1371.
- Muraour, *H.*, influence of radiation on combustion of colloidal powders in a closed vessel, A., 1530.
- direct determination of nitric nitrogen in colloidal [explosive] powders; acetone method, B., 687.
- graphic method for determining the explosion temperature of SD powders, B., 795.
- Muraour, *H.*, and Aunis, *G.*, laws of combustion of colloidal [explosive] powders, B., 442.
- comparison between calculated and experimental explosion pressures, B., 841.
- Muraour, *H.* See also Michel-Lévy, *A.*
- Murata, *K.* See Fuseya, *G.*
- Murata, *M.*, parenteral resorption of colloids. III, A., 1616.
- Murch, *W. M.*, Cauwenberg, *W. J.*, and National Aniline & Chemical Co., purification of 2-aminoanthraquinone, (P.), B., 941.
- Murdick, *P. P.*, purification of diphtheria and tetanus antitoxins after concentration by fractionation with ammonium sulphate, A., 819.
- Murdoch, *D. G.* See Adam, *W. G.*
- Murdock, *C. C.*, form of the X-ray diffraction bands for regular crystals of colloidal size, A., 267.
- Murdock, *W. J.*, Lundgren, *E. E.*, Evans, *O. B.*, and Pier Process Corporation, apparatus for manufacture of combustible gas, (P.), B., 451*.
- combustible gas generator, (P.), B., 598.
- manufacture of producer gas, (P.), B., 598.
- Mureck, *H. G.* See Wilke-Dörfert, *E.*
- Murgatroyd, *J. B.*, choice of annealing schedule for commercial glassware, B., 766.
- Murgoci, *R.* See Reimann, *A. L.*
- Muris, *F.* See Gen. Aniline Works, Inc.
- Murlin, *J. R.*, Line, *W. R.*, Piper, *H. A.*, and Pierce, *H. B.*, nutritive value of cereal breakfast foods. I. Composition and calorific value, B., 390.
- Murlin, *J. R.* See also Carman, *J. S.*
- Murmann, *E.*, drying of damp masonry, (P.), B., 192.
- Muromtzev, *B.* See Ipatiev, *V. N.*
- Murphy, *A.* See Friese, *R. W.*
- Murphy, *A. F.*, and Jones, *W.*, preparation of silicon-steel sheets for electrical purposes, (P.), B., 823*.
- Murphy, *A. J.* See Rosenhain, *W.*
- Murphy, *D. P.*, and Drinker, *C. K.*, comparative action of 5 and 10% carbon dioxide mixtures as respiratory stimulants in carbon monoxide poisoning, A., 953.
- Murphy, *E. A.* See Dunlop Rubber Co., Ltd.
- Murphy, *E. J.*, and Lowry, *H. H.*, complex nature of dielectric absorption and dielectric loss; influence of ions adsorbed on inner surfaces, A., 685.
- Murphy, *Edgar J.* See Allison, *F.*
- Murray, *A. E.*, effect of velocity on diffusion rates, A., 688.
- Murray, *A. N.*, and Love, *W. W.*, action of organic acids on limestone, A., 732.
- Murray, *C. W.* See Barnes, *J. W.*
- Murray, *D. R. P.*, and King, *C. G.*, stereochemical specificity of esterases. I. Affinity of liver-esterases for optically active alcohols, A., 373.
- Murray, *F.* See Ford, *J. S.*
- Murray, *H. D.*, and Norton & Gregory, Ltd., manufacture of diazotype [light]-sensitive [photo-copying] papers, etc., (P.), B., 218, 841*.
- production of photographic images [by the diazotype process], (P.), B., 264.
- production of photographic images, (P.), B., 533*.
- Murray, *H. D.*, and Spencer, *D. A.*, manufacture of strengthened glass, (P.), B., 145, 190, 558.
- manufacture of decorative glass, (P.), B., 419.
- testing safety glass, B., 1110.
- Murray, *I. L.*, graphical solution of problems involving solvent recovery by scrubbing, B., 352.
- Murray, *J. B.* See Bennett, *I. T.*
- Murray, *J. F.* See Bennett, *I. T.*
- Murray, *T. E.* See Bennett, *I. T.*
- Murray, *T. E.*, jun. See Bennett, *I. T.*
- Murray, *T. F.* See Clarke, *H. T.*
- Murray, *T. F.*, jun., Staud, *C. J.*, and Gray, *H. L. B.*, optical rotation of cellulosic materials. I. Optical rotation of soluble cellulose in alkali, A., 750.
- Murray, *W. G.*, solvent action of ferrous sulphate solution on oxidised copper ore, B., 147.
- Murray, *W. S.*, and Oneida Community, Ltd., production of tarnish-resisting silver and silver plate, (P.), B., 1034.
- Murray-Rust, *D. M.*, and Hartley, (*Sir*) *H.*, dissociation of acids in methyl and in ethyl alcohol, A., 160.
- Murray-Rust, *D. M.* See also Unmack, (*Miss*) *A.*
- Murrill, *P. I.*, Evans, *W. W.*, and Vanderbilt Co., Inc., *R. T.*, treatment of rubber, (P.), B., 1081.
- Murrill, *P. I.*, and Vanderbilt Co., Inc., *R. T.*, preparation of pickling baths [for iron or steel], (P.), B., 197.
- [inhibitor for baths used in the] pickling and cleaning of metals, (P.), B., 1034.
- Musajo, *L.* See Ciusa, *R.*
- Musakin, *A. P.* See Alexeevski, *E. V.*
- Muscolino, *G.* See Moretti, *P.*
- Muskat, *I. E.*, and Becker, *B. C.*, conjugated systems. III. Chlorination of β -vinylacrylic acid, A., 451.
- Muskat, *I. E.*, Becker, *B. C.*, and Lowenstein, *J. S.*, conjugated systems. II. Bromination of β -vinylacrylic acid, A., 321.
- Muskat, *I. E.*, and Grimsley, *L. B.*, conjugated systems. IV. Addition of hypochlorous and hypobromous acids to phenylbutadiene, A., 769.
- Muskat, *I. E.*, and Northrup, *H. E.*, conjugated systems. V. Preparation and chlorination of butadiene, A., 1553.
- Muskat, *M.*, dispersion formula and Raman effect for the symmetrical top, A., 978, 1236.
- distribution of non-reacting fluids in the gravitational field, A., 1109.
- Musker, *A.*, machines for disintegrating or acting upon materials, (P.), B., 124.
- Mussehl, *F. E.*, Hill, *R. S.*, and Ackerson, *C. W.*, antirachitic value of cod-liver meal, A., 1222.
- Mussehl, *F. E.*, Hill, *R. S.*, Blish, *M. J.*, and Ackerson, *C. W.*, utilisation of calcium by the growing chick, A., 495.
- Mussnug, *F.* See Gossner, *B.*
- Mutaftschiev, *Z. C.*, action of nitric acid on iron, A., 40.
- Mutaftschiev, *Z. C.* See also Stranski, *I. N.*
- Mutch, *G.* See Law, *A. C.*
- Muth, *F.* See Heiduschka, *A.*
- Mutschin, *A.* See Holluta, *J.*
- Muttelet, *F.*, pectic juices in fruit jellies, B., 482.
- Mutzenbecher, *P. von.* See Ettisch, *G.*
- Myasnikov, *A. L.* See Samarin, *G. A.*
- Myburgh, *W. S.*, automatic watering apparatus for pot experiments, B., 75.
- Mycock, *W.* See Mycock & Co., Ltd., *W.*
- Mycock & Co., Ltd., *W.*, and Mycock, *W.*, apparatus for mercerising textile fabrics, (P.), B., 902.
- Myers, *C. N.* See Van Dyck, *L. S.*
- Myers, *F. E.*, and Cox, *R. T.*, transmission of β -rays through magnetised iron foil: an attempt to polarise a beam of electrons, A., 8.
- Myers, *V. C.*, and Beard, *H. H.*, influence of inorganic elements on blood regeneration in nutritional anaemia, A., 365.
- Myers, *V. C.* See also Pfiffner, *J. J.*
- Mygind, *H. G.* See Billmann, *E.*
- Myles, *J. R.* See McKenzie, *A.*
- Mylius, *W.* See Ekwall, *P.*

Myrbäck, K. See Euler, H. von, and Sumner, J. B.
 Myrbäck, S. See Euler, H. von.
 Mytyzek, R. See Hüttig, G. F.

N.

- N., M. J., linseed oil as adhesive for Bordeaux mixture, B., 632.
 Naamlooze Vennootschap Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
 Naamlooze Vennootschap Bouwonderneming Ketabang IV., device for sucking air and other gases from centrifugal boxes used for spinning artificial silk threads, (P.), B., 100.
 Naamlooze Vennootschap Chemische Fabriek "Servo," and Rozenbroek, M. D., sulphonation of fatty acids and fatty acid derivatives, (P.), B., 203.
 Naamlooze Vennootschap Chemische Industrie van Hasselt, and Naamlooze Vennootschap Meelfabrieken der Nederlandsche Bakkerij, bleaching of flour, (P.), B., 393.
 Naamlooze Vennootschap "Electro" Zuur- en Waterstoffabriek, preparation of highly adsorbent cuprene from acetylene, (P.), B., 705.
 Naamlooze Vennootschap Electrochemische Industrie, manufacture of [halogen-resistant] refractory vessels, etc., (P.), B., 13.
 treatment of grain, cereals, flour, etc., (P.), B., 165.
 Naamlooze Vennootschap Grasso's Machinefabrieken, and Grasso, H. A. M., machines for kneading butter, margarine, and other foodstuffs, (P.), B., 1168.
 Naamlooze Vennootschap Handelsmaatschappij "Cuba." See Behnke, P. M. F.
 Naamlooze Vennootschap Houtindustrie "Picus." See Behnke, P. M. F.
 Naamlooze Vennootschap Industriële Maatschappij "Amstellin," making a washable paint [distemper], (P.), B., 779.
 Naamlooze Vennootschap Internationale Oxygenium Maatschappij "Novadel," treatment of flour, meal, milling products, etc., (P.), B., 791.
 Naamlooze Vennootschap A. Jurgens Margarinefabriek. See Loon, C. van.
 Naamlooze Vennootschap Kodowa Refrigerator Co., generator for absorption refrigerating apparatus, (P.), B., 171.
 absorption refrigerating apparatus, (P.), B., 1098.
 Naamlooze Vennootschap Koninklijke Stearine Kaarsenfabriek Gouda, manufacture of pavement materials, (P.), B., 949, 1031.
 Naamlooze Vennootschap Maatschappij tot Beheer en Exploitatie van Octrooien, rolling and annealing of glass plates, (P.), B., 190, 327.
 apparatus for handling and emptying glass-melting pots, (P.), B., 558.
 Naamlooze Vennootschap Machinerieën en Apparaten Fabriek, gas-purification apparatus, (P.), B., 224.
 carbon disc resistance, (P.), B., 246.
 Naamlooze Vennootschap Meelfabrieken der Nederlandsche Bakkerij. See Naaml. Vennoots. Chem. Ind. van Hasselt.
 Naamlooze Vennootschap Midden-Europeesche Octrooimaatschappij, refrigerators, (P.), B., 1009.
 Naamlooze Vennootschap Mijnbouw-en Cultuurmaatschappij "Boeton," preparation of bituminous masses, (P.), B., 666.
 covering roads and tiles and manufacturing tiles, plates, blocks, etc., (P.), B., 771.
 simultaneously obtaining refined mineral oils and pure bitumen from crude mineral oils, (P.), B., 806.
 converting high-boiling mineral oils containing unsaturated compounds into lower-boiling hydrocarbons with simultaneous decoloration, (P.), B., 1014.
 decolorisation of hydrocarbon oils, (P.), B., 1057.
 Naamlooze Vennootschap Mijnbouw en Handelsmaatschappij "Soember Assin," extraction of alkali iodide from water containing iodine, (P.), B., 283.
 Naamlooze Vennootschap Montaan Metaalhandel, and Siegens, H., revivification of adsorptive materials, (P.), B., 308.
 Naamlooze Vennootschap Neckar Wasserreinger Maatschappij, and Heringa, J. A., production of saturated lime-water, (P.), B., 1027.
 Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek, preparing finished [cellulose] acetate silk by the dry or evaporative method, (P.), B., 370.
 Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek. See also Brit. Enka Artificial Silk Co., Ltd., and Janssen, H. J. J.
 Naamlooze Vennootschap Nederlandsche Linoleumfabriek. See Börnstein, H., and Willigen, P. C. van der.
 Naamlooze Vennootschap Nederlandsche Naamlooze Vennootschap Fransch-Hollandsche Oliefabriek Nouveaux Etabl. Calvé-Delft, manufacture of edible fatty products with a butter-like aroma, (P.), B., 826.
 Naamlooze Vennootschap de Nieuwe Isoleer Maatschappij "De Nim," plates, slabs, tiles, etc., for building and sound- or heat-insulating purposes, (P.), B., 1031.
 Naamlooze Vennootschap Norit-Vereeniging Verkoop Centrale, manufacture of highly-activated adsorptive carbons, (P.), B., 46.
 Naamlooze Vennootschap Philips' Gloeilampenfabrieken, electric discharge tubes, (P.), B., 23, 152, 429, 673, 825, 1035.
 coating metallic or non-metallic bodies with (a) vanadium, (b) chromium, (P.), B., 64.
 manufacture of incandescence bodies, (P.), B., 65.
 electric incandescence lamp, (P.), B., 65, 1161.
 [cathode-glow] electric discharge tubes, (P.), B., 209.
 [gas-filled] electric-discharge tubes, (P.), B., 246.
 [operation of] electric [aro] discharge tubes [emitting ultra-violet radiation], (P.), B., 246.
 preparation of alkali metals and alkaline-earth metals, (P.), B., 289.
 X-ray installations, (P.), B., 291.
 deforming a crystalline aluminium body, (P.), B., 332.
 Wehnelt cathodes, (P.), B., 428.
 X-ray tubes, (P.), B., 429, 776.
 cathodes for electron-discharge tubes, (P.), B., 515.
 manufacture of Wehnelt cathodes for electric-discharge devices, (P.), B., 566.
 [Wehnelt cathode for] electric-discharge tubes, (P.), B., 672.
 electron-discharge tubes or thermionic valves [with incandescence cathodes], (P.), B., 774.
 electric filaments and resistances, (P.), B., 775.
 photo-electric cells, (P.), B., 775.
 electric-discharge tubes [emitting positive-column light], (P.), B., 776.
 soldering [tungsten, molybdenum, or tantalum], (P.), B., 823.
 devices for irradiation of substances with ultra-violet rays, (P.), B., 955.
 X-ray tubes [with rotating anticathode], (P.), B., 996.
 making of X-ray photographs, (P.), B., 1170.
 Naamlooze Vennootschap Philips' Gloeilampenfabrieken, and Arkel, A. E. van, precipitation of boron, (P.), B., 946*.
 Naamlooze Vennootschap Philips' Gloeilampenfabrieken, and Liempt, J. A. M. van, coating bodies with tungsten, (P.), B., 916*.
 Naamlooze Vennootschap Philips' Gloeilampenfabrieken. See also De Boer, J. H., and Hertz, G. L.
 Naamlooze Vennootschap Silica en Ovenbouw Maatschappij, device for the utilisation of the sensible heat of the distillation gases from ovens for production of gas and coke, (P.), B., 497.
 [steaming in] horizontal chamber ovens, especially coke ovens, (P.), B., 597.
 Naamlooze Vennootschap Silica en Ovenbouw Maatschappij, and Hiby, W., utilisation of coke ovens, (P.), B., 131.
 Nabenhauer, F. P., manufacture of casein and lactose from skim milk, B., 788.
 Nachmansohn, D. See Meyerhof, O.
 Nachtsheim, P., cracking of petroleum and mineral oils and their different fractions, (P.), B., 1056.
 Nacken, M. J., blackening of photographic plates by electron rays, A., 716.
 Nadelmann, A. H. See Mannich, C.
 Nadenheim, (Frl.) F. See Curtius, T.
 Nadler, W. H., and Wolfer, J. A., hepatogenic hypoglycæmia associated with primary liver-cell carcinoma, A., 106.
 Naef, E. E., manufacture of alkaline, alkaline-earth, and ammonium nitrates from chlorides, (P.), B., 711.
 Nähring, E. See Jentzsch, F.
 Naeser, O., refining of copper, (P.), B., 720.
 Naeshagen, E. See Hassel, O.
 Näslund, N. R. See Hedman, N. O.
 Näslund, H., centrifugal separator, (P.), B., 269.
 Nagai, S., mixed Portland cements. I.—VI., B., 191, 241, 284, 768, 906.
 small-piece testing on strength of cement mortar. I.—IV., B., 241, 462, 769.

- Nagai, S., lime-alumina cement. I. and II., B., 769, 907.
laintenance of cement mortars and concrete. II., B., 907.
- Nagai, S., and Akiyama, K., Portland cements of high iron oxide content. I., II., and III., B., 462, 769.
- Nagai, S., and Asaoka, K., calcium ferrites and iron cements. I.—V., B., 769, 907, 1030.
- Nagai, S., and Matsuyama, S., acid-proof cement mortars. I.—III., B., 191.
- Nagai, S., and Naito, R., fundamental synthesis of calcium aluminates and their hydration. I.—VII., A., 436; B., 191, 770, 1067.
- Nagai, S., and Yoshizawa, K., maintenance of cement mortars and concrete. I. and II., B., 191, 327.
- Nagai, W., and Hattori, S., constitution of primetin, A., 784.
- Nagai, Y., speed of initial uniform movement of the flame in hydrocarbon-air mixtures, A., 1000.
law of flame speeds. I. General condition required for application of the law, A., 1000.
effect of combustion-suppressors on the limits of inflammability of carbon disulphide; mechanism of raising of theoretical flame propagation temperature, A., 1129.
speed of flame in a closed tube, A., 1255.
effect of a hydrocarbon and ethyl ether on the spontaneous ignition temperature of carbon disulphide, A., 1256.
minimum concentration of carbon tetrachloride giving non-inflammable mixtures with carbon disulphide and the effect of combustion suppressors thereon, A., 1256.
prevention of knocking of gasoline, B., 131.
law of flame speeds. II. Law applied to mixtures of combustibles having different theoretical flame propagation temperatures, B., 749.
- Nagai, Y. See also Saijo, S., and Tanaka, Y.
- Naganishi, H., Korean koji (a kind of so-called Chinese yeast), B., 1127.
- Nagano, M. See Fuseya, G.
- Nagaoka, H., and Futagami, T., reversal in the spectra of beryllium, A., 650.
- Nagaoka, H., Futagami, T., and Machida, I., change of wavelength and intensity in iron lines by disruptive discharge, A., 970.
character of shifts in different series of iron lines by disruptive discharge, A., 1329.
shifts in spectral lines of ionised titanium by disruptive discharge, A., 1329.
shifts in spectral lines of nickel by disruptive discharge, A., 1329.
- Nagaoka, H., and Mishima, T., Zeeman effect of the lines of neon isotope Ne²², A., 970.
isotope effect in the spectrum of neon, A., 1337.
- Nagasawa, T. See Shinosaki, Y.
- Nagaya, T., amount of work and acid production of muscle. II. and III., A., 109.
- Nagayama, T., and Munehisa, T., experimental scurvy. V. Calcium and phosphorus metabolism of guinea-pigs fed on a diet free from vitamin-C, A., 367.
- Nagayama, T., and Tagaya, T., experimental scurvy. VII. Effect of vitamin-C given parenterally to guinea-pigs fed on a vitamin-free diet, A., 1321.
- Nagel, A. von, catalytic oxidation of ammonia, A., 1380.
- Nagel, A. von. See also Schlephake, O.
- Nagel, F. See Goldschmidt, S.
- Nagel, W., and Grüss, J., cements and moulding masses and their use in electrotechnics, B., 284.
- Nagel, W., and Tiedemann, E., action of atomic hydrogen on organic compounds [oleic acid], A., 577.
- Nagel, W. See also Landmark, H.
- Nagl. See Kienzl.
- Nagy, Z. S. See Zemplén, G.
- Nahum, L. H. See Himwich, H. E.
- Naik, K. G., Desai, R. D., and Parekh, M. M., interaction between thionyl chloride and substances containing the reactive methylene group. I. Formation of sulphoxides, A., 764.
- Naik, K. G., Desai, R. D., and Trivedi, R. K., phosphoryl chloride as a condensing agent in the synthesis of coumarin derivatives, A., 217.
- Naik, K. G., and Parekh, M. M., interaction between thionyl chloride and substances containing the reactive methylene group. II. Conversion of sulphoxides into sulphides, A., 764.
- Naik, K. G., and Shah, C. H., interaction of chlorosulphonic acid with substituted amides of malonic and methylmalonic acids, A., 763.
- Naik, K. G., and Shah, C. H., mercuration of compounds containing the reactive methylene group, A., 1421.
interaction of iodine monochloride with substances containing the reactive methylene group, A., 1426.
- Naik, K. G., and Trivedi, R. K., interaction of selenium tetrachloride with substances containing the reactive methylene group, A., 938.
- Nair, J. H., lipase in raw, heated, and desiccated milk, B., 637.
- Naismith, D. M. See Naismith, G.
- Naismith, G., and Naismith, D. M., furnaces [for heating billets, etc.], (P.), B., 17.
- Naito, R. See Nagai, S.
- Nakada, J. R., retention nephritis, A., 1469.
- Nakada, K., electrolytic reduction of an aromatic arsenic acid, A., 45.
- Nakagome, G. See Asahina, Y.
- Nakahara, W., relation of vitamin-B to tumour growth, A., 634.
- Nakahara, W., and Somekawa, E., vitamins and tumour growth. III. Vitamin-B content of rat tumours, A., 963.
- Nakai, R., thermal decomposition of cresols, A., 870.
- Nakamura, G., band spectrum of lithium hydride, A., 124.
- Nakamura, H. See Matsuyama, M.
- Nakamura, K., catalytic hydrogenation of fluorene and derivatives, A., 466.
fluorene series, A., 1427.
formula for calculating the calorific value of Japanese coals, B., 171.
- Nakamura, Michikata, permeability of electric steel, B., 512.
- Nakamura, Mitsuo. See Tanaka, Y.
- Nakamura, N. See Yamagawa, M.
- Nakamura, S. See Nishida, K.
- Nakanishi, S. See Asahina, Y.
- Nakano, M., beating of [paper] pulp. IV. Beaten pulp. I. Beaten stuff. II., B., 235.
beating of [paper] pulp. V. Relation between time and true degree of beating, B., 235.
beating of [paper] pulp. VI. Wet and dried pulps, B., 412.
beating of [paper] pulp. VII. Beating degree and copper number, B., 552.
beating of [paper] pulp. VIII. Effect of various reagents on the stuff in beating. IX. Effect of beating on the viscosity of stuffs, B., 608.
beating of [paper] pulp. XI. A characteristic of vegetable fibres as paper-making materials, B., 813.
beating of [paper] pulp. XII. Improvement of absorbency of blotting paper, B., 899.
beating of [paper] pulp. XIII. Influence of water of imbibition on the physical properties of the paper, B., 1104.
- Nakashidze, B. See Malyatski, A.
- Nakashima, M. See Weigert, F.
- Nakashima, T., cellulose benzyl ethers, A., 72*.
- Nakashima, T., Murakami, J., and Ohora, S., viscose. XXXIX. Properties of viscose prepared from alkali-cellulose immersed for a long time in alkali, and of the resultant spun fibres, B., 758.
behaviour of cellulose with bisulphite as compared with sulphurous acid solution, B., 857.
- Nakashima, T. See also Kita, G.
- Nakata, A. See Miyamoto, S.
- Nakatsuchi, A., separation of xylenes. I. Fusion curves of the systems *o*-xylene-*m*-xylene and *o*-xylene-*p*-xylene. II., A., 332.
separation of xylenes. III. Isolation of *o*-xylene from its isomerides, A., 589.
- Nakazawa, F. See Tada, S.
- Nakazawa, K. See Ohori, T.
- Nakhmanovich, M. I., and Berman, S. L., clarification of sugar solutions for analysis, B., 298.
- Nambo, T. See Goto, K.
- Nomekin, S. S., crude oil from bore hole No. 20 in Chusovaya (Perm), B., 401.
- Nomekin, S. S., and Briusova, L. J., homologues of the camphor group. VII. 4-Methylcamphor derivatives, A., 922.
isocyclene, A., 922.
- Nomekin, S. S., Kitchkin, A. S., and Kursanov, D. N., phenyl-substituted camphor and its derivatives, A., 216, 348*.
- Nomekin, S. S., and Nekrassov, V. V., qualitative reactions of primary arsines, A., 230*.

- Nametin, S. S., and Putzillo, V. G., oxygen values of asphaltenes and resins in crude oils, B., 130.
- Nametin, S. S., and Shakhnazarova, E. M., Sakhalin crude oils, B., 272.
- Nametin, S. S., Velikovskii, A. S., and Nifontova, S. S., comparison of American and Russian paraffin waxes, B., 596.
- Namikawa, N. See Kimura, S.
- Nandi, B. K. See Bose, P. K.
- Nandy, S. K. See Ghosh, J. C.
- Nanfeldt, W., and World Bestos Corporation, manufacture of [fibrous] friction- and heat-resisting articles, (P.), B., 1105.
- Nanji, D. R., and Stewart, D. M., treatment of fibrous plant tissues, (P.), B., 321*.
- Naoum, P., and Berthmann, A., duration of the explosion flame of quarry and coalmine explosives, B., 687.
- Naoum, P., and Meyer, K. F., vapour pressure of nitroglycerin and nitroglycol, B., 84.
- Naphtali, M., technical production of anhydrous aluminium chloride, B., 186.
- technical and economical basis of the conversion of wood into sugars, B., 388.
- gum formation in cracked petrol, B., 698.
- cracking process without coke formation, B., 850.
- removal of sulphur from petroleum products, B., 935.
- Nara, M. See Oguri, Sutezo.
- Narasimhamurthy, N., and Sreenivasaya, M., spike disease of sandal (*Santalum album*, Linn.). VI. Nitrogen metabolism in healthy and spiked sandal leaves, A., 385.
- Narayan, A. L., Pattabhi, P., and Rao, A. S., spectra of doubly and trebly ionised thallium, A., 1331.
- Narayan, A. L. See also Rao, A. S.
- Narayana, N. See Patwardhan, V. N.
- Narayanamurti, D., neutral salt action. I. Diastase, A., 1065.
- nature of amylase. II., A., 1216.
- Narayanan, B. T., chemical investigation of "bios." I., A., 375.
- Narayanan, B. T., and Drummond, J. C., concentration of vitamin-B₂, A., 380.
- Náray-Szabó, S., structure of staurolite, A., 528.
- silicate system based on crystal structure, A., 1241.
- Náray-Szabó, S., Taylor, W. H., and Jackson, W. W., structure of cyanite, A., 528.
- Narbutt, J., Herschel effect, A., 1385.
- Narischkin, N. A., synthesis of 2-chloro-5-aminobenzoic acid, A., 911.
- Narkevich, M. M., potassium dichromate as catalyst in the solution of copper in sulphuric acid, A., 1258.
- Narkiewicz-Jodko, K. See Ziemecki, S. L.
- Narutowicz, J., localisation of oxidising enzymes in the cell of fungi, A., 643.
- Nash, A. W., gaseous products of shale retorting: their composition and possible utilisation, B., 542.
- synthetic fuels, B., 699.
- synthetic fuels and lubricating oils, B., 840.
- Nash, A. W. See also Howes, D. A.
- Nash, C. A., Trickey, J. P., Miner, C. S., and Quaker Oats Co., synthetic plastic material, (P.), B., 158.
- Nash, T. P. See Morrison, D. B.
- Nash, W. G. See Black, J. G.
- Nashua Manufacturing Co. See Knowland, R. G.
- Nasini, A. G., viscosity of vapours. I. Influence of molecular association on the viscosity of acetic acid (vapour). II. Relationship between critical constant and gaseous viscosity, A., 25.
- Nasini, A. G. See also Natta, G.
- Nasini, R., and Bovalini, E., water of the Vena d'Oro well, A., 569.
- chemico-physical data and chemical analysis of the water of Vanzono d'Ossola, A., 731.
- Nasledov, D. N., and Scharavski, P. V., passage of electricity through solid dielectrics, A., 984.
- variation of the ionisation current in cercsin with temperature, A., 1348.
- Nasmith, G. G., colour test of floe in treating coloured water, B., 534.
- Nastukov, A. M., formolite analyses of crude oils, B., 176.
- Natanson, L., variations in relative intensities in the resonance spectrum of selenium, A., 1227.
- variations of intensity distribution in resonance spectra, A., 1490.
- Nathan, L., and Hansena Akt.-Ges., filtration of beer wort for further treatment, and of beer and other foaming liquids, (P.), B., 583*.
- Nathorst, H. J. H. See Grönwall, E. A. A.
- National Aniline & Chemical Co., Inc., distillation of normally solid substances, (P.), B., 306.
- National Aniline & Chemical Co., Inc., and Ellzey, E. F., colloidal monosodium tetraiodophenolphthalein, (P.), B., 640.
- National Aniline & Chemical Co., Inc. See also Croakman, E. G., Geller, L. W., Hoover, K. H., Kyrides, L. P., Murch, W. M., Pepper, R. J., and Wait, J. F.
- National Boiler Washing Co. of Illinois. See Otis, S.
- National Carbon Co., Inc. See Bowditch, F. T.
- National Lead Co. See Thompson, G. W., and Walker, E. C.
- National Metal & Chemical Bank, Ltd. See Stephens, F. G. C.
- National Processes, Ltd., and Gyles, T. B., utilisation of sulphur-bearing gases from ore-roasting or -sintering operations, (P.), B., 63.
- National Processes, Ltd. See also Storer, G. E.
- National Vulcanized Fibre Co. See McClellan, J. L.
- Natta, F. J. van. See Carothers, W. H.
- Natta, G., relations between the activity of catalysts for the synthesis of methyl alcohol and their chemical and crystalline structure. I., A., 552.
- crystal structure of hydrogen iodide and its relation with that of xenon, A., 1099.
- crystalline structure of hydrogen sulphide and of hydrogen selenide, A., 1350.
- manufacture of methyl alcohol [from carbon monoxide and hydrogen], (P.), B., 895.
- production of gaseous mixtures suitable for the synthesis of hydrocarbons, methyl alcohol, and other oxy-organic compounds, (P.), B., 937.
- Natta, G., and Nasini, A. G., crystal structure of xenon, A., 528.
- crystal structure of krypton, A., 983.
- Natta, G., and Passerini, L., constitution of Rinmann's green, Thénard's blue, and other coloured solid derivatives of the oxides of cobalt, A., 20.
- crystal structure of white phosphorus, A., 671.
- Natta, G., and Strada, M., synthesis from water-gas of alcohols higher than methyl alcohol, B., 651.
- Naucér, J. O. See Ledin, S. H.
- Naudé, S. M., isotopes of nitrogen, mass 15, and oxygen, mass 18 and 17, and their abundances, A., 1232.
- Naugatuck Chemical Co., preparation of rubber compositions, (P.), B., 1122.
- Naugatuck Chemical Co., and Hazell, E., treatment of [rubber] latex, (P.), B., 959.
- Naugatuck Chemical Co., and McGavack, J., methods and apparatus for coating fabrics [with rubber, etc.], (P.), B., 815.
- Naugatuck Chemical Co., and Smith, O. H., production of styrene and homologues thereof, (P.), B., 276.
- Naugatuck Chemical Co., and Strickhouser, S. I., treatment of rubber and products thereof, (P.), B., 918.
- Naugatuck Chemical Co. See also Cadwell, S. M., McGavack, J., Reel, J. H., and Traube, I.
- Naugle, J. J., [electrodes for] electric furnaces, (P.), B., 108.
- activating and revivifying spent activated carbon, (P.), B., 177.
- Naugle, J. J. See also Ehrhart, E. N.
- Naumann, H. G. R., cooling of fatty substances in liquid condition, (P.), B., 675.
- Naumann, H. N., rapid evaporation. I., II., and III., A., 314, 447, 1549.
- polarimetry of solutions of low rotations. I. Sensitivity of polarimetric determinations, A., 884.
- polarimetry of solutions of low rotations. II., A., 1153.
- polarimetry of solutions of low rotations. III. Sources of error, A., 1153.
- Naumann, K. See Wiessmann, H.
- Naunton, W. J. S. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Navano, I., and Palacios, J., crystal structure of barium tungstate. I., A., 279.
- Navarre, P. O. I. See Rivollier, P. M.
- Navarro, J., determination of the hardness-resistance to bending diagram of grey cast iron, B., 772.
- Nave, E. D. See Pierce, J. S.
- Naves, R. See Gliichtoh, L. S.
- Naves, Y. R., zdravet oils, B., 1131.

- Navez, A. E., alleged effect of polarised light on films of starch, A., 1535.
- Navratil, H. See Fessler, A. H.
- Nawiasky, P. See Gen. Aniline Works, Inc.
- Nayar, M. R., and MacMahon, P. S., electrolytic preparation of silver oxide, A., 1382.
- Kohlschütter's method of preparing silver hydrosol, A., 1517.
- Nayder, T. See Zakrzewski, K.
- Nayudu, E. Y. See Choudary, K. S.
- Nead, J. H., Wehr, E. R., Mahlie, C. C., and American Rolling Mill Co., soldering process [for galvanised articles], (P.), B., 565.
- Neal, A. M. See Kraus, C. A., and Williams, I.
- Neale, L. C., manufacture of printers' ink, (P.), B., 69.
- Neale, S. M., swelling of cellulose and its affinity relations with aqueous solutions. I. Experiments on the behaviour of cotton cellulose and regenerated cellulose in sodium hydroxide solution, and their theoretical interpretation, A., 417.
- swelling of cellulose, and its affinity relations with aqueous solutions. II. Acidic properties of regenerated cellulose illustrated by the absorption of sodium hydroxide and water from dilute solutions, and the consequent swelling, A., 1249.
- Neave, S. L., determination of chlorides in salt brines, B., 417.
- Neave, S. L. [with Buswell, A. M.], anaerobic oxidation of fatty acids, A., 1270.
- Neber, P. W., Führ, F., and Bauer, P., substitution processes in doubly-unsaturated hydrocarbons. II., A., 592.
- Nechels, H., and Gerard, R. W., effect of carbon dioxide on nerve, A., 949.
- Nederlandsche Gutta-Percha Maatschappij, manufacture of a latex mixture having high adhesive properties, (P.), B., 71.
- Needham, D. M., succinic acid in muscle. III. Glutamic and aspartic acids as precursors, A., 493.
- Needham, D. M. See also Needham, J.
- Needham, J., selachian yolk protein, A., 237.
- Needham, J., and Needham, D. M., nitrogen excretion in selachian ontogeny, A., 491.
- Neeley, G. S., [boiler]-scale removing and preventing apparatus, (P.), B., 932*.
- Neelmeier, W. See Gen. Aniline Works, Inc.
- Nees, A. R. See Bennett, A. N.
- Neff, J. M. See Zimmer, D. C.
- Negelein, E. See Warburg, O.
- Nègre, L., and Boquet, A., methylic antigen [of tubercle bacilli], A., 1623.
- Nehl, F., mechanical properties of copper steels with especial reference to the effect of heat treatment, B., 909.
- Nehring. See Serger.
- Nehring, K., "Kalkammonsalpeter," B., 579.
- Nehring, K., and Keller, A., influence of soil reaction and manuring on the composition of a mixture of various grasses and clovers, B., 632.
- Nehring, K. See also Zielstorff, W.
- Neill, R. G., apparatus for rapid electrometric titration, A., 447.
- Neill, R. G. See also Moore, H. B.
- Nekrassov, B., b. p. of hydrocarbons, A., 533.
- b. p. and chemical constitution. III. Monopolar open-chain organic compounds, A., 981.
- Nekrassov, N. I. See Kobosov, N., and Spitalski, E.
- Nekrassov, V. V., and Komissarov, I. F., β -chloroethyl esters of carbonic and sulphuric acids, A., 575.
- Nekrassov, V. V., and Melnikov, N. N., action of chloropierin on mercaptans, A., 575*.
- esters of halogenated alcohols. II. Reactions of esters containing the trichloromethoxyl group, A., 738.
- esters of chlorinated alcohols. II., A., 1019.
- esters of halogenated alcohols. III. Decomposition of trichloromethyl chloroformate with alcohols of different types, A., 1270.
- Nekrassov, V. V., and Sokolov, A. V., chlorination of *p*-nitrophenylacetone nitrile, A., 86.
- Nekrassov, V. V. See also Nametkin, S. S.
- Nel, L. T. [with Spencer, L. J.], new occurrence of zunyite near Postmasburg, South Africa, A., 570.
- Nellen, A. H., and Sellers, H. M., correlation between Geer oven and natural ageing of selected [rubber] tyre compounds, B., 70.
- Nellensteyn, F. J., lyophile and lyophobic sols, A., 1248.
- microscopical researches on coal-tar solutions, B., 227.
- extraction apparatus for bituminous road materials, B., 228.
- Nellensteyn, F. J., and Roodenburg, N. M., surface tension-temperature curves of asphalt bitumen and allied products, A., 1369.
- Nelson, E. F. See Egloff, G.
- Nelson, E. K., isocitric acid, A., 1163.
- flavour of orange honey, B., 1089.
- Nelson, E. K., and Greenleaf, G. A., cane-molasses distillery slop, B., 76.
- Nelson, E. M. See Jones, D. D.
- Nelson, F. G. See Levine, M.
- Nelson, G. H. See Burke, G. W.
- Nelson, I. T. See Jardine, J. L.
- Nelson, J. M., and Palmer, A. H., diffusion of yeast invertase through collodion membranes, A., 957.
- Nelson, O. A., vapour pressures of fumigants. IV. $\alpha\alpha\beta\beta$ -Tetra-, penta-, and hexa-chloroethanes, B., 1093.
- Nelson, O. J., and Bryte-Nelson Refining Co., reclaiming lubricating oils, (P.), B., 48.
- Nelson, P. M. See Irwin, M. H.
- Nelson, R. E., and Jones, R. N., organic compounds of selenium. I. Action of selenium oxychloride on ketones, A., 798.
- Nelson, V. B. See Evvard, J. M.
- Nelson, W. G., waste-wood utilisation by the Badger-Stafford process, B., 495.
- Nelson, W. K., and Insulex Corporation, composition construction or heat-insulating material [cellular cement], (P.), B., 375*.
- Nelson, W. L., and Cretcher, L. H., preparation of γ -D-mannonolactone, A., 322.
- isolation and identification of *d*-mannuronolactone from *Macrocystis pyrifera*, A., 892.
- preparation of γ -[butyrolactones, A., 1406.
- Němec, A., rapid colorimetric method for determining the phosphate deficiency in arable soils, B., 207.
- influence of silicio acid on the resorption of soil phosphoric acid, B., 255.
- phosphate content of forest humus soils, B., 473.
- rapid method of determining the effect of phosphate fertilisers on the yield of crops, B., 579.
- determination of the root-soluble phosphate in soils by the seedling method, B., 733.
- impoverishment of forest soils by use of the litter, B., 783.
- phosphoric acid content of forest humus soils, B., 783.
- chemical method for determining fertiliser requirements [of soils] and the action of phosphatic fertilisers, B., 1000.
- chemical changes in the organic matter [of soils] during the natural decomposition of the humus layers of woodlands. I. Variation in pentosan content, B., 1123.
- Němec, A., and Gračanin, M., influence of light on the resorption of potash and phosphates in Neubauer experiments, B., 387.
- Němec, A., Lanik, J., and Koppova, A., rapid colorimetric determination of citric-soluble phosphoric acid in soils, B., 1000.
- Němec, A. See also Gračanin, M.
- Němec, V., and Kudlaček, B., improved Kubelka-Němec sedimentation method of determining the insoluble matter in tannin analysis, B., 782.
- Němec, V. See also Kubelka, V.
- Nemilov, V. A., hardness, microstructure, and temperature coefficients of conductivity of platinum-iron alloys, A., 147.
- platinum-iridium alloys, A., 148.
- Nemoto, C. See Kaneko, S., and Ogawa, W.
- Nemova, Z. N., mineralogical investigations of certain soils of the Akhmangansk plateau in Armenia, A., 1398.
- Neitzescu, C. D., reactions of magnesium pyrrol and indolyl compounds, A., 614.
- mechanism of the action of organo-magnesium compounds on *N*-disubstituted amides of $\alpha\beta$ -unsaturated acids, A., 1433.
- Neitzescu, C. D., and Isacescu, D. A., modification of Gattermann's method for the preparation of phenol- and pyrrole-aldehydes, A., 614.
- action of iodine on halogeno-derivatives of acinitro-alkali compounds, A., 1569.
- Nenko, P. See Matzkov, F. F.
- Neogi, N. C. See Sen, H. K.
- Neogi, P., and Mitra, S. K., geometrical inversion. I. Resonance reactions, A., 550.
- Nepveux, F. See Labbé, M.
- Nerad, A. J. See Gen. Electric Co.
- Nerechtskij, W., oak chips from tan-works as raw material for paper, B., 97.

- Neresheimer, H. See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
- Neri, A. See Charrier, G.
- Nerling, O. See Bredemann, G.
- Nes, G. E. van, purification and decolorising of aqueous solutions [raw sugar juice, etc.], (P.), B., 170.
- Nesemann, E. See Kühnel, R.
- Nesmejanov, A. N., synthesis of aromatic mercurio-organic salts, A., 355.
- Nesmejanov, A. N., and Kan, E. I., synthesis of symmetrical aromatic mercurio-organic salts, A., 355.
- Nesmejanov, A. N., and Kozeschkov, K. A., reaction of organo-mercury compounds with salts of bivalent tin as a method for the preparation of organo-tin compounds, A., 1603.
- Nesom, G. H. See Alway, F. J.
- Nesselmann, K., and Dardin, F., evaporation tests with models of Ruths' steam accumulator, B., 797.
- Nessler, F. See Askenasy, P.
- Neu, H., pneumatic transport of granular and powdered materials, B., 489.
- Neubauer, H., determination of the potash and phosphate requirement of soils by the seedling method, B., 257.
- Neuberg, C., photochemical and phytochemical formation of acyloins (carboligic action), A., 1474.
- Neuberg, C., and Collatz, H., action of sulphite in the second type of fermentation, A., 250.
separate existence and stability of dihydroxyacetone and glyceraldehyde in aqueous solution, A., 1273.
dismutation of methylglyoxalylacetic acid to *d*-a-hydroxy-glutaric acid, A., 1474.
- Neuberg, C., and Hofmann, Eduard, preparation of methylglyoxal solutions, A., 1409.
- Neuberg, C., and Kobel, M., formation of pyruvic acid as an intermediate phase in the alcoholic degradation of sugars; isolation of pyruvic acid as the chief product of fermentation, A., 374.
production of pyruvic acid during fermentation with yeast, A., 818.
fourth and fifth fermentation processes of sugar, A., 1318.
lecture experiment to illustrate the occurrence of the methylglyoxal and pyruvic acid stage during the alcoholic fission of sugars, A., 1474.
- Neuberg, I. S., enolic structure of pyruvic acid and its aliphatic derivatives, A., 742.
preparation of glyceraldehyde and glycerol, A., 1164.
- Neuberg, I. S., and Ostendorf, C., special behaviour of *d*-mannose in biochemical phosphorylation, A., 958.
- Neubert, O., and Winthrop Chemical Co., Inc., water-soluble substance containing colloidal silver chloride, (P.), B., 37.
- Neubert, P. See Henoky, K.
- Neubner, R. See Scheibler, H.
- Neugebauer, H., luminescence analysis of homœopathic potency [of drugs], B., 82.
detection of gold in homœopathic preparations, B., 264.
homœopathic aconite and gelsemium preparations, B., 883.
identification of homœopathic preparations by luminescence analysis, B., 883.
- Neuhaus, A., anomalous crystallised mixed systems with organic components or of an organic component in an inorganic host, A., 682.
anomalous crystallised mixed systems of the type iron ammonium chloride, A., 682.
- Neuhaus, A. See also Spangenberg, K.
- Neuhaus, L. See Dilthey, W.
- Neuhaus, H. See Ajax Metal Co.
- Neukirch, E. See Lucas, R.
- Neuman, E. W. See Popov, S.
- Neumann, A., determination of total iodine content of Tinct. Iodi with potassium bichromate, B., 639.
- Neumann, B., dehydration of silicic acid by ignition, A., 1365.
- Neumann, B., and Exssner, C., conversion of sodium chromate into dichromate by the action of carbon dioxide under pressure, B., 658.
- Neumann, B., and Haebler, H., hydrates of bleaching powder, A., 176.
- Neumann, B., and Jüttner, H., sulphuric acid catalysis. IV. So-called arsenic poisoning, A., 430.
- Neumann, B., and Kröger, C., formation of bleaching powder, A., 1386.
- Neumann, B., and Kunz, H., reactions involved in the Hargreaves [salteake] process, B., 101.
- Neumann, B., and Manke, G., catalytic oxidation of hydrogen cyanide, A., 43.
- Neumann, B., and Müller, Georg, thermochemistry of hypochlorous acid, A., 295.
- Neumann, E., manufacture of butyl alcohol, (P.), B., 548.
- Neumann, E. A., absorption of resonance lines in mercury vapour on admixture of foreign gases, A., 971.
- Neumann, F., heating device for attaining high temperatures by means of electric heating resistances, (P.), B., 1160.
- Neumann, G. See Heiduschka, A.
- Neumann, H. See Fetkenheuer, B.
- Neumann, K. E. See Schwalbe, C. G.
- Neumann, M. P., and Nolte, O., influence of manuring on the baking quality of bread cereals, B., 258.
- Neumann, P., and Telephon-Apparat Fabrik E. Zweitusch & Co., dipping solution for electric condensers, (P.), B., 996*.
- Neumann, S. See Müller, Adolf.
- Neumann, W. See Bennewitz, K.
- Neumark, H. See Girsewald, C. von.
- Neumark, M., production of cast iron in a coke-fired blast furnace, (P.), B., 149.
production of pig iron, (P.), B., 913.
- Neumayer, K. See Moser, L.
- Neumayr, S. See Zintl, E.
- Neunhoeffer, A. See Hüchel, W.
- Neunhoeffer, M., infra-red emission bands under high dispersion, A., 520.
- Neupert, E. F. See Cartland, G. F.
- Neuschloz, S. M., state of solution of cholesterol in blood-serum. I. Artificial mixtures of lipin and protein. II. Extractability of cholesterol from blood-serum by alcohol and a method of determination of free and esterified cholesterol. III. Relations between cholesterol and proteins, A., 1462.
- Neusser, E. See Abel, E.
- Neustadt, G., and Neustadt, I., production of coffee beans free from or poor in caffeine with an extract percentage corresponding to that of untreated coffee beans, (P.), B., 484.
- Neustadt, I. See Neustadt, G.
- Neuville, F., foam process of fire-extinguishing, (P.), B., 169.
- Neuwirth, F., desulphurisation of gas with Köflach lignite charcoal, B., 227.
- Neville, H. A., and Theis, E. R., measurement of the hydration of gelatin and similar materials and the relation of hydration to swelling, A., 994.
- Neville, H. A., Theis, E. R., and K'Burg, R. B., some properties of gelatin. I. Hydration of gelatin and its relation to swelling, B., 340.
- Neville, H. A., Theis, E. R., and Ostwald, C. T., some properties of gelatin. II. Method for determining transition temperatures of gels and sols, B., 340.
- Neville, H. A. See also Theis, E. R.
- Nevin, T. E., band systems associated with selenium, A., 1075.
- Nevin, T. E. See also Nolan, J. J.
- Nevros, K. See Schmidt, Erich.
- New, R. G. A. See Baker, W., and Hammick, D. L.
- New Eccles Rubber Works, Ltd., and Hemm, C., [scaling the ends of ebonite]-coated metal rods or tubes, (P.), B., 206.
- New Jersey Zinc Co., Peirce, W. McG., and Anderson, E. A., zinc-base alloys and articles made therefrom, (P.), B., 617.
- New Jersey Zinc Co. See also Farber, C. W., and Hooey, W. C.
- Newall, H. E., Skilling, W. J., and Sinnatt, F. S., hydrogen cyanide in the gaseous products from the propagation of a zone of combustion through powdered coal, B., 648.
- Newbald, L. H. See Dental Manufg. Co., Ltd.
- Newbery, G., and May & Baker, Ltd., manufacture of aromatic arsenic compounds containing an isoxazine ring, (P.), B., 928*.
- Newbery, E., theory of electrodes, A., 1376.
- Newbery, I. B., and Lignite Products Corporation of America, retort [for distillation of oil shale], (P.), B., 7*.
- Newbury, K., effect of light on the electron emission from oxide-coated filaments, A., 268.
- Newby, H. L., and Pearsall, W. H., nitrogen metabolism in the leaves of *Vitis* and *Rheum*, A., 1626.
- Newcomb, C., water content of heart muscle in beri-beri *columbarum*, A., 634.
analysis of small urinary calculi, A., 634.
salt licks, A., 636.
composition of urinary calculi, A., 1468.

- Nowcomb, C., and Ranganathan, S., composition of urinary calculi in rats, A., 1468.
- Nowcomb, C., and Sankaran, G., iodine metabolism, A., 636.
- Newell, I. L. See Foglesong, J. E.
- Newesly, H. See Koffer, L.
- Newey, J. G., and Jerred, C. B., electroplating apparatus, (P.), B., 291*.
- Newhouse, R. C., and Allis-Chalmers Manufacturing Co., comminuting mill, (P.), B., 398.
- Newhouse, R. C., comminution of material, (P.), B., 692.
- Newhouse, R. C. See also Allis-Chalmers Manuf. Co.
- Newkirk, B. L. See Brit. Thomson-Houston Co., Ltd.
- Newkirk, E. D., and Briggs, A. J., low-temperature reduction of iron ores, (P.), B., 1075.
- Newkirk, E. D. See also Snyder, F. H.
- Newkirk, W. B., and International Patents Development Co., manufacture of dextrose, (P.), B., 436*, 1085.
- Newlin, M. R. See Wolfrom, M. L.
- Newman, A. B., use of thermal data in drying-tower design, B., 489.
- Newman, A. B., and Brown, G. G., minimum voltage to reduce aluminium oxide, B., 1026.
- Newman, H. G. A., and Accurate Recording Instrument Co., Ltd., [mounting of capillary tubes of] thermometers, (P.), B., 494.
- Newman, J. G., manufacture of [strip] matches, B., 930.
- Newman, L. F. See Clarke, G. R.
- Newnes, J., [firebridge construction for] consuming smoke in boiler and similar furnaces, (P.), B., 846.
- Newport Co., purifying and decolorising rosin with resorcinol, (P.), B., 157.
- Newport Co., purification of benzantrones, (P.), B., 276.
- Newport Co., bromination products of 6:6'-dichloro-4:4'-dimethylthiindigo and their manufacture, (P.), B., 276.
- Newport Co. See also Palmer, R. C.
- Newport Manufacturing Co. See Schrauth, W., and Schroeter, G.
- Newsome, P. T. See Sheppard, S. E.
- Newton, C. See Mathews, S.
- Newton, D. See Hutchinson, A. H.
- Newton, (Miss) D. A., cataphoresis of small particles in water, A., 858.
- Newton, E. B. See Anode Rubber Co., Ltd.
- Newton, J., [laminated] safety glass sheet and its manufacture, (P.), B., 948.
- Newton, J. D., seasonal fluctuations in numbers of micro-organisms and nitrate-nitrogen in an Alberta soil, B., 632.
- Newton, P. H. See Groggins, P. H.
- Newton, R., and Anderson, J. A., rust resistance in wheat. IV., A., 122.
- Newton, R., Lehmann, J. V., and Clarke, A. E., rust resistance in wheat. I.—III., A., 122.
- Newton, R. F., and Bolinger, M. G., dissociation constant of water from an equilibrium involving mercuric oxide and mercurous bromide, A., 542.
- Newton, W., and Hastings, R. J., new sulphur-resin spray, B., 1083.
- Newton, W., and Yarwood, C., substances toxic to the downy mildew of the hop, B., 299.
- Newton, W., downy mildew of the hop in British Columbia, B., 682.
- Newton Chambers & Co., Ltd., and Blyth, M. W., fungicides, disinfectants, etc., (P.), B., 488.
- Newton Chambers & Co., Ltd. See also Mallet, M.
- Ney-Valerius, F., Doppler effect of hydrogen positive rays, A., 1493.
- Ni, T. G., and Rehberg, P. B., mechanism of sugar excretion. I. Dextrose, A., 1308.
- Nichita, G. See Mayer, A.
- Nicholas, S. D. See Cooper, E. A.
- Nicholls, F. W., treatment of bitumen for production of new products, (P.), B., 133.
- Nicholls, P., and Landry, B. A., coke as a domestic heating fuel, B., 128.
- Nichols, E. C., non-porous aluminium alloy for vacuum-chamber castings, B., 16.
- Nichols, E. L., reversible oxidation in luminescence, A., 520.
- Nichols, E. L., and Boardman, L. J., activators in cando-luminescence, A., 520.
- Nichols, E. L., and Wick, F. G., ozone in luminescence, A., 519.
- Nichols, J. B., comparison of the ultracentrifuge method for mol. wt. determination with the classical methods, A., 846.
- Nichols, M. S., and Jackson, J. W., permanent colour standards for bilirubin, A., 1486.
- Nichols, P. F., variations in content of sugars and related substances in olives, A., 1324.
- Nichols, P. F., and Lesley, B. E., California olive oil, B., 956.
- Nichols, W. A., jun. See Rodebush, W. H.
- Nichols Copper Co., multiple-hearth roasting furnace, (P.), B., 379.
- Nichols Copper Co. See also Fowler, E. J., and Hartley, H. J.
- Nichols Products Corporation, drying apparatus, (P.), B., 1134.
- Nicholson, A. H. See Metal Castings, Ltd.
- Nicholson, P. B., road tar, B., 558.
- Nickel, A. C., tetraiodophenolphthalein as an antiseptic and germicide of the biliary tract, A., 116.
- Nickerson, J. L., range of the α -particle of thorium, A., 659.
- Nickols, C. L., and Brown, G. G., motor-fuel volatility. IV. Relation between atmospheric temperature, fuel volatility, and engine performance, B., 802.
- Nickols, C. L. See also Brown, G. G.
- Nickowitz, M. N. See Du Pont de Nemours & Co., E. I.
- Nieloux, M., determination of carbon monoxide in a gas containing 0.25—0.3%, A., 311.
- Nieloux, M., determination of oxygen in sea-water, A., 1143.
- Nieloux, M., micro-determination of carbon, A., 1392.
- Nieloux, M., micro-determination of carbon in soil, B., 28.
- Nicodemus, O. See Gen. Aniline Works, Inc.
- Nicola, O. F. F. See Damjanovitch, H.
- Nicolai, F. See I. G. Farbenind. A.-G.
- Nicolaiev, O. V., rôle of ions and electrolytes in the process of physiological stimulation, A., 364.
- Nicolardot, P., and Gaubert, P., crystalline products in a baryta glass, B., 239.
- Nicolardot, P. L. F., purification of carbon disulphide, (P.), B., 50.
- Nicolas, E. A. J. H., meters for velocities of gas streams, A., 885.
- Nicolas, E. A. J. H., reagents for gaseous impurities in technical gases, B., 352.
- Nicolet, B. H., interpretation of the dehydration of acetylglutamic acid by means of glutamylthiohydantoin derivatives, A., 755.
- Nicolet, B. H., thiohydantoin from cystine and cysteine; action of alkali, A., 1297.
- Nicolet, B. H., glutathione, A., 1299.
- Nicolet, B. H., and Poulter, T. C., epoxy-acids [oxido-acids] from oleic and elaidic acids, A., 742.
- Nicolle, P. See Launoy, L.
- Nicolojannis, B. See Schmitz-Dumont, O.
- Niece, F. G. See Dilworth, R. M.
- Nieden, K., preparation of phosphoric acid from crude phosphates, (P.), B., 323.
- Niederer, K. See Wilke-Dörfurt, E.
- Niederl, J. B., Trautz, O. R., and Saschek, W. J., application of the dilution method to micro-analysis, A., 1542.
- Niederländer, K. See Reindel, F.
- Niedzwietzki, S. V. See Salkind, J. S.
- Niekerk, J. van, and Everse, J. W. R., physiological evaluation of ergosterol preparations, A., 119.
- Niekerk, J. van, and Everse, J. W. R., X-ray standardisation of vitamin-D preparations, A., 1071.
- Nielsen, A. See Deseniss, M.
- Nielsen, C., mixing machine, (P.), B., 399.
- Nielsen, H., and Laing, B., powdered-fuel burners, (P.), B., 7.
- Nielsen, H., manufacture of producer gas, (P.), B., 232*.
- Nielsen, H., apparatus for distillation of solid carbonaceous materials, (P.), B., 310.
- Nielsen, H. H., spectrum of radium emanation, A., 1076.
- Nielsen, I. B. See Schou, S. A.
- Nielsen, J. R., molecular scattering of light, A., 275.
- Nielsen, J. R., and Wright, N., atomic resonance radiation in potassium vapour, A., 264.
- Nielsen, N. J., heating of apparatus for condensing milk, (P.), B., 1168.
- Niemann, C. See Link, K. P.
- Niemann, J. See Borsche, W.
- Niemer, H. See Fischer, Hans.
- Niemeyer, F. See Weber, Hermann.
- Niemeyer, P., decomposition and effect of straw- and peat litter-stall manure in soils, B., 296.
- Niemkoff, G., and Société Anonyme des Appareils de Manutention et Fours Stein, oil-burning [metallurgical] furnace, (P.), B., 63.

- Nierenstein, *M.*, constitution of catechin. *X.*, *A.*, 781.
catechins of the cutch-producing *Acacias*, *A.*, 1223.
methylation process, *A.*, 1580.
- Nierenstein, *M.*, and Clibbens, *D. A.*, [preparation of] β -resorcylic acid, *A.*, 773.
- Nierenstein, *M.* See also Malkin, *T.*
- Niesemann, *H.*, preparation of large microtome sections of hard woods, *A.*, 382.
- Niessen, *K. F.*, atomic separation in tetrahedral crystals, *A.*, 1100.
- Niessner, *M.*, use of microchemical reactions in metallography. I. Detection of sulphide segregations, *A.*, 879.
- Niethammer, *A.*, microchemical reactions for the study of permeability in plants, *A.*, 382.
histochemical investigation of the tanning material in the leaves of *Carpinus betulus* at different times, *A.*, 382.
micro-detection of rats, *A.*, 386.
micro-sublimation and the micro-gas-chamber method as aids to the evaluation of plant products, *A.*, 825.
biochemistry and histochemistry of fruits and seeds. I., *A.*, 964.
microscopical characterisation of different mixtures of tea and its substitutes, *B.*, 263.
use of formaldehyde titration for the testing of foodstuffs [such as honey, cacao, etc.], *B.*, 482.
formaldehyde titration of lemon juices, *B.*, 964.
microchemical detection of [glucosidic] inclusions in certain fruits, *B.*, 964.
- Niethammer, *H.*, and König, *Walter*, cellulose ethers, *A.*, 72.
- Nieuwenburg, *C. J. van*, alkalimetric titration, indicators and titration errors. I.—V., *A.*, 879, 1142.
- Nieuwenburg, *C. J. van*, and Blumendal, *H. B.*, volatility of silica in water vapour, *A.*, 1262.
- Nieuwenburg, *C. J. van*, and Schotsman, *J.*, translucency and particle size in white enamels containing stannic and zirconium oxides, *B.*, 1066.
- Nieuwenhuyzen, *F. J.* See Kroese, *A. G.*
- Nieuwland, *J. A.*, Vogt, *R. R.*, and Foohey, *W. L.*, preparation of acetals, *A.*, 745.
- Nieuwland, *J. A.* See also Hinton, *H. D.*
- Nifontova, *S. S.* See Nametkin, *S. S.*, and Velikovski, *A.*
- Nigam, *L. S.* See Batham, *H. N.*
- Niggli, *P.*, *P-T* diagrams for definite phase numbers, *A.*, 699.
stereochemistry of crystalline compounds, *A.*, 1097.
- Nightingale, *G. T.*, and Schermerhorn, *L. G.*, assimilation of nitrate by asparagus in absence of light, *A.*, 507.
- Nightingale, *S. J.*, ternary alloys of lead, *B.*, 912.
- Nijhoff, *G. H.*, and Oort, *H. D. van*, sterilisation of hexamethylcetetramine solutions, *B.*, 1090.
- Nijhoff, *G. P.*, Gerver, *A. J. J.*, and Michels, *A.*, isotherms of carbon dioxide between 0° and 100°, *A.*, 677.
- Nikiforov. See Rozanov, *N. A.*
- Nikitin, *B.*, and Komlev, *L.*, radium content of petroliferous waters of Baku and of Daghestan, *A.*, 1267.
- Nikitin, *B.* See also Chlopov, *V.*
- Nikitin, *L. V.*, influence of degree of dispersion of substrates on the equilibria of heterogeneous systems, *A.*, 1121.
- Nikitin, *N. J.*, and Juriev, *V. I.*, absorption of ammonia, carbon dioxide, and the vapours of organic liquids on titanium, tin, cerium, and thorium dioxide gels, *A.*, 28.
- Nikitin, *S. N.* See Losev, *K. I.*
- Niklas, *H.*, and Miller, *M.*, proof of the constancy of "effect" factors [in growth curves], *B.*, 239.
- Niklas, *H.*, and Poschenrieder, *H.*, biological *Azotobacter* method for determining the phosphate requirement of soils, *B.*, 680.
- Niklas, *H.*, Poschenrieder, *H.*, and Czibulka, *F.*, agreement between "*Azotobacter* values" and results of the seedling method, *B.*, 921.
- Niklau, *M.*, sulphur in the cupola-furnace process, *B.*, 242.
- Nikolaiev, *V. J.*, and Dombrovskaja, *N. S.*, quaternary system $K_2O-N_2O_5-H_2Cl_2-H_2O$, *A.*, 163.
- Nikolaiev, *V. J.*, and Krastelevski, *S.*, mechanism of Salkovski's colour test for cholesterol, *A.*, 910.
- Nikolaiev, *V. M.* See Lindtrot, *N. T.*
- Nikolaievski, *A. P.*, physico-chemical properties of the Baskuntshak salt lake, *A.*, 1015.
- Nikolitch, *S.* See Clarens, *J.*
- Nikolski, *B. P.* See Paramonov, *Y. I.*
- Nilson, *L. G.*, and International Bitumenoil Corporation, retort [for distillation of shale, etc.], (*P.*), *B.*, 406.
- Nilsson, *H.* See Euler, *H. von*.
- Nilsson, *R.*, enzymic carbohydrate degradation, *A.*, 374, 641.
- Nilsson, *R.* See also Euler, *H. von*, and Sym, *E.*
- Nimmo, *G. L.* See Fuson, *R. C.*
- Nims, *B.* See Macy, *I. G.*
- Nininger, *H. H.*, Sandia mountains meteorite, *A.*, 57.
oxidation of meteorites; formation of "meteorodes," *A.*, 1156.
- Ninomiyu, *M.* See Okano, *V. K.*
- Nishi, *T.*, and Ohtsuka, *K.*, high-voltage phenomena in insulating oil, *B.*, 290.
- Nishida, *K.*, and Hashima, *H.*, glucomannan from "konjak," *A.*, 1413.
- Nishida, *K.*, and Nakamura, *S.*, causticising ammonium chloride with magnesium oxide, *B.*, 1108.
- Nishida, *Kitsuji*, and Takagi, *T.*, wood-pentosan. I., *B.*, 898.
- Nishida, *Kotaro*. See Yoshimura, *K.*, and Yoshimura, *Seisho*.
- Nishida, *M.* See Sawai, *I.*
- Nishigawa, *T.*, [manufacture of] ammonium sulphate, (*P.*), *B.*, 142.
- Nishigori, *S.*, and Hamasumi, *M.*, equilibrium diagram of [the system] nickel and chromium, *A.*, 419.
- Nishihara, *S.*, ternary system aluminium-magnesium-zinc. I., *A.*, 682.
- Nishimoto, *U.* See Suzuki, *B.*
- Nishimura, *H.*, cause of graphite formation in cast iron, *B.*, 560.
- Nishimura, *S.*, anti-body formation by polysaccharides, *A.*, 237.
internal secretion and blood-calcium, *A.*, 645.
starch-liquefying enzyme in dried yeast autolysates; synthetic action of the enzyme, *A.*, 1218.
liquefaction of starch by the enzyme in yeast autolysate, *A.*, 1477.
enzymic synthesis of higher dextrans, *A.*, 1619.
- Nishimura, *S.* See also Yamagawa, *M.*
- Nishimura, *Y.* See Kiuti, *M.*
- Nishio, *H.* See Osaka, *Y.*
- Nishio, *M.*, effect of heating syphilitic serum and its protein fractions on precipitation reaction, *A.*, 242.
- Nishiwaki, *Y.*, fermentation-physiological properties of *Saccharomyces saké*, *B.*, 880.
- Nishiyama, *Z.*, magnetostriction of single crystals of cobalt, *A.*, 141.
measurement of the elastic constant, lattice constant, and density of binary alloys in the range of solid solution, *A.*, 148.
- Nishizawa, *K.*, and Matuki, *Y.*, Twitchell reagent; effect of addition of (II) acids, and (III) salts and variation of conditions, on the fat-splitting power of the reagents and on the darkening of fatty acid, *B.*, 870.
- Nishizawa, *K.*, and Sinozaki, *M.*, preparation of pure sodium sulphuricinoleate from ricinoleic acid and sulphuric acid, *B.*, 568.
- Nishizawa, *K.*, and Winokuti, *K.*, sulphonated oils. III. Properties of aqueous solutions of pure sodium ricinoleate, sodium oleate, or the sodium salt of the sulphuric acid ester of ricinoleic acid, *B.*, 568.
- Nishizawa, *K.*, Winokuti, *K.*, and Kikuti, *T.*, sulphonated oils. VI. Reaction mechanism between aqueous solution of sulphuric acid esters of hydroxy-fatty acids and salts. VII. Preparation and properties of pure alkali hydrogen salts of the sulphuric acid ester of ricinoleic acid, *A.*, 321.
- Nisi, *H.*, Raman effect in some crystals, *A.*, 522.
Raman spectra of some compounds containing the S_nO_n or RO_n group, *A.*, 662.
- Nistler, *A.*, dispersity of dyes, *A.*, 854.
- Nitchie, *C. C.*, and Schmutz, *F. C.*, transmission changes in ultra-violet glasses during high-temperature exposure to light, *B.*, 863.
- Nitchie, *C. C.* See also Davey, *W. P.*
- Nitoslawski, *W.*, velocity of reduction of potassium ferrieyanide by dextrose in alkaline solution, *A.*, 1001.
- Nitralloy Corporation. See Fry, *A.*
- Nitschke, *A.*, preparation of two active and specific thymus substances, and their effect on the lime and phosphate content of rabbit's serum, *A.*, 379.
- Nitschke, *A.*, and Hörste, *G. M. zu*, mineral content and acid-base equilibrium of infants' serum, *A.*, 800.
- Nitze, *H.* See "Sachtleben" *A.-G. f. Bergbau & Chem. Ind.*

- Nitzescu, I. I., and Benetato, G., lipin metabolism; rôle of the pancreatic hormone in pulmonary lipin-utilisation. I. Lipin-utilisation *in vivo* and internal secretion of the pancreas. II. Lipin-utilisation *in vitro* and internal secretion of the pancreas, A., 1211.
- Nitzescu, I. I., and Benetato, M., utilisation of pentoses by the animal organism; effect of intravenous injection of pentoses on the secretion of lactose, A., 1466.
- Nitzescu, I. I., and Georgescu, I. D., citric acid content of animal fluids (cerebrospinal, follicular, and amniotic fluids and aqueous humour), A., 946.
- Nitzschke, O. See I. G. Farbenind. A.-G.
- Nitzschmann, R., volumetric relationships of the carbon monoxide process, B., 1053.
- Niven, A. See Dunlop Rubber Co., Ltd.
- Nix, F. C., and Schmid, E., casting texture of metals and alloys, B., 10.
- Nixon, J. See Hodgson, H. H.
- Niyogi, S. C., organo-antimony compounds. IV. Stibinic acids derived from local anæsthetics, A., 1432.
- Njegovan, V., thermodynamics of high pressures, A., 1523.
- Njegovan, V., and Marjanović, V., quantitative precipitations at very high concentrations. II., A., 1544.
- Noack, F. See I. G. Farbenind. A.-G.
- Noack, F., freezing mixture, B., 124.
- Noack, H. See Bartels, H.
- Nobbe, P. See Krause, E.
- Nobes, F. L., manufactured abrasives, B., 664.
- Nobilleau, G., and Gulpel, J., protection of articles of iron, steel, and cast iron, (P.), B., 197.
- protection of iron, copper, and their alloys, (P.), B., 868.
- Noble, R. E. See Tonney, F. O.
- Nocken, T. See Gen. Aniline Works, Inc.
- Noda, T. See Kameyama, N.
- Noddack, I., and Noddack, W., abundance of the chemical elements, A., 1341.
- Noddack, W. See Noddack, I.
- Nodz, R. See Duclaux, J., and Staudinger, H.
- Noeggerath, J. E., [pressure] electrolyser with collecting block, (P.), B., 776.
- Noel, L. von, and Dannmeyer, F., possible preparation of highly active ergosterol (vitamin-D) from raw coffee, A., 381.
- Nørgaard, G. See Keesom, W. H.
- Nogareda, O., hydrates of the alkaline earth peroxides. I., A., 1006.
- Noguchi, K. See Matsumura, S.
- Nolan, J. J., and Nevin, T. E., effect of water vapour on diffusion coefficients and mobilities of ions in air, A., 658.
- Nolan, J. J., and O'Keeffe, J. G., ions produced by discharges at liquid surfaces, A., 269, 974.
- Noll, A., Bolz, F., and Belz, W., rapid determination of furfuraldehyde, A., 1304.
- Noll, W., nontronite, A., 733.
- sorption of potassium in clayey sediments in relation to the formation of potash-mica by metamorphism, A., 1398.
- Noller, C. R., preparation of *s*-diphenylsemicarbazide, A., 766.
- Noller, G. R., and Talbot, R. H., [preparation of] erucic acid, A., 741.
- Nolte, E., treatment of sugar-factory effluents with chlorine, B., 38.
- Nolte, O., [law of] minimum [in agriculture], B., 208.
- improved quality of crops manured with phosphates and potash, B., 630.
- Nolte, O., and Münzberg, H., "kalkammonsalpeter," B., 784.
- Nolte, O., Münzberg, H., and Koch, H., effect of nitrogenous fertilisers on pastures, B., 784.
- Nolte, O., and Rauterbeng, M., liming experiments [on soils], B., 74.
- "nitrophoska" as a fertiliser, B., 74.
- Nolte, O. See also Neumann, M. P., and Walter, E.
- Nolton, F., wine vinegar, (P.), B., 300.
- Nolze, H. F. J., disintegrator for cleaning gases, etc., (P.), B., 538.
- Nomitsu, T., Kamimoto, R., and Toyohara, Y., adsorption of a sodium chloride solution by sand, A., 286.
- Nomura, H., Iwamoto, K., and Murakami, K., pungent principles of ginger. VI. Colour reaction of shogaol and methylgingerol, A., 617.
- Non-Inflammable Film Co., Ltd., and Phillips, D. J. P., manufacture of opaque films, (P.), B., 814.
- Nonnenbruch, W. See Klein, O.
- Norbury, A. L. See Brit. Cast Iron Res. Assoc.
- Nord, F. F. See Weichherz, J.
- Nordberg Manufacturing Co., and Symons, E. B., crushing machines, (P.), B., 537.
- Nordberg Manufacturing Co. See also Symons, E. B.
- Nordell, C. H., and Permutit Co., continuous softening of water [by the use of zeolites], (P.), B., 396.
- Nordengren, S. G., and Aktiebolaget Kemiska Patent, manufacture of phosphoric acid, (P.), B., 1066*.
- Nordh, G. See Edfeldt, O., and Ohlsson, E.
- Nordlander, B. W., kinetics of the vulcanisation of rubber, B., 1122.
- Nordlander, B. W. See also Gen. Electric Co.
- Nordmann, C., [multi-colour filter] for colour photography and kinematography, (P.), B., 441.
- Norgaard, E., and Thaysen, T. E. H., intravenous injection of insulin. I. Normal blood-sugar curve, A., 1221.
- Norgate, R., washing of gas, (P.), B., 92.
- Norman, A. G., biological decomposition of plant materials. I. Nature and quantity of furfuraldehyde-yielding substances in straws. II. Rôle of furfuraldehyde-yielding substances in the decomposition of straws, A., 261.
- Norman, A. G., and Martin, J. T., pectin. V. Hydrolysis of pectin, A., 966.
- Norman, A. G., and Norris, F. W., pectin. IV. Oxidation of pectin by Fenton's reagent and its bearing on the genesis of the hemicelluloses, A., 824.
- Norman, G. M., and Hercules Powder Co., refining of rosin, (P.), B., 431.
- Normand, C. E., absorption coefficient for slow electrons in gases, A., 973.
- Normann, W., manufacture of ghee substitutes, B., 153.
- Norn, M., behaviour of potassium in the organism. I. Potassium and sodium contents of different organs. II. Fluctuations in excretion of potassium, sodium, and chlorine by the kidney. III. Fluctuation in potassium concentration of the plasma after administration of potassium salts and in diuresis, and its relation to the elimination of potassium in urine, A., 1314.
- Norris, (Miss) D., lac industry in India, B., 827.
- Norris, E. R., and Church, A. E., antimony trichloride reaction for vitamin-A, A., 379.
- antimony trichloride reaction for vitamin-A. II. Dilution curve of cod-liver oil with antimony trichloride reagent, A., 962.
- Norris, E. R., and Danielson, I. S., ratfish-liver oil as a source of vitamin-A, B., 25.
- Norris, E. R., and Gibb, W. E., determination of blood-sugar, A., 1305.
- Norris, F. W., and Preece, I. A., hemicelluloses. I. Hemicelluloses of wheat bran, A., 383.
- Norris, F. W. See also Norman, A. G.
- Norris, G. C. See Stevens, R. H.
- Norris, J. F., and Young, R. C., reactivity of atoms and groups in organic compounds. X. Measurement of the relative lability of linkings by rates of reactions and temperatures of decomposition. I. Hydrogen-oxygen linking in alcohols, A., 470.
- Norris, J. H., blood of cattle and sheep in Victoria (Australia), A., 1202.
- Norris, J. H., and Chamberlin, W. E., blood of cattle and sheep in Australia, A., 360.
- Norris, L. C. See Heuser, G. F.
- Norris, R. V. See Ayyar, C. V. R., and Sundaram, P. S.
- Norris, W. S., and Thole, F. B., determination of existent gum in cracked distillates, B., 447.
- Norsk Handels- og Industrielaboratorium Aktieselskab, and Tharaldsen, F., electrothermal production of zinc, (P.), B., 333.
- Norsk Hydro-Elektrisk Kvaestof-Aktieselskab, apparatus for conducting catalytic gas reactions under pressure, (P.), B., 307.
- hydrogen and hydrogen-nitrogen mixtures, (P.), B., 312.
- non-caking mixed fertilisers containing sodium or potassium nitrate, (P.), B., 342.
- Norske Aktieselskab for Elektrokemisk Industri, apparatus for treatment of liquid slags, etc., (P.), B., 1114.
- Norske Aktieselskab for Elektrokemisk Industri of Norway. See Sem, M. O.
- North, C. O., and Rubber Service Laboratories Co., production of higher aldehyde derivatives of reaction products of aldehydes and amines, (P.), B., 69*.

- North, C. O., Scott, Winfield, and Rubber Service Laboratories Co., manufacture of aldehyde-amine reaction products [vulcanisation accelerators], (P.), B., 603.
- Northrop, J. H., crystalline pepsin. I. and II. Isolation and properties, A., 1317.
- Northrop, J. H., and Kunitz, M., solubility curves of mixtures and solid solutions, A., 1252.
- Northrup, E. F., inductor furnace, (P.), B., 245.
- electric induction furnace, (P.), B., 380.
- electric furnaces of the inductor type, (P.), B., 515.
- Northrup, E. F., and Ajax Electrothermic Corporation, inductor furnace, (P.), B., 291*.
- Northrup, H. E. See Muskat, I. E.
- Norton, B., treatment of coal [slurry], (P.), B., 597.
- Norton, C. L., jun. See Norton, F. H.
- Norton, F. H., and Norton, C. L., jun., small gas-fired laboratory furnace, A., 567.
- Norton, J. F., Verder, E., and Ridgway, C., proteus haemolysin, A., 115.
- Norton Co., [segmental] grinding or abrading wheels, (P.), B., 768.
- grinding wheels, (P.), B., 948.
- production of aluminium oxide, (P.), B., 988*.
- Norton Co. See also Larsson, T., Martin, R. H., and Ridgway, R. R.
- Norton & Gregory, Ltd. See Murray, H. D.
- Norwood, A. F. B. See Standard Telephones & Cables, Ltd.
- Norwood, S. M., and Electro-Metallurgical Co., welding rods, (P.), B., 1116.
- Noshi, K., blood-lactic acid. I. Resting value and distribution. II. Permeability of blood-cells to *dl*-, *d*-, and *l*-lactic acid, A., 801.
- Noss, F. See Suida, H.
- Notstitz, A. von, effect of frost on arable soils, B., 253.
- soil evaluation and examination, B., 733.
- Nostrand, F. H. van. See Harding, V. J.
- Notevarp, O., determination of the water content [of substances] by means of calcium hydride, A., 560.
- Nothhaft, J., and Steinmetz, H., distribution of foreign substances in crystals, A., 733.
- Nottage, (Miss) M., passive state and adhesion, A., 539.
- Nottbohm, F. E., the Vieth ratio [in determination of dried milk], B., 437.
- Nottbohm, C. L. See Hock, L.
- Novák, and Maláč, soil reaction in the surroundings of Rožnov, with special reference to meadows and pastures, B., 577.
- Novák, H., asphalt emulsions for highways, B., 130.
- testing of parquett asphalt, B., 130.
- Novák, H., and Hubáček, J., composition of coal bitumen and its influence on the coking of coal, B., 540.
- Novak, I. J., [resinous] saturant for fibrous bases and its preparation, (P.), B., 1039.
- Novakova, B. See Abetti, G.
- Novakovski, A. See Trillat, J. J.
- Novák-Šimek, influence of tillage on the porosity and structure of soil, B., 575.
- Novelli, A., substantive dyes derived from 2:7-diaminofluorene, A., 906.
- Novelli, F., continuous kilns of the Hoffman type, (P.), B., 462.
- method and apparatus for burning solid fuel, (P.), B., 539*.
- Novopokrovski, I., and Tschebotareva, N., formation of paste from potato starch and some colloid-chemical properties of the product, A., 1366.
- Novoselov, A. V. See Krause, E. F.
- Novotny, E. E., Romieux, C. J., and Stokes, J. S., manufacture of synthetic resin, (P.), B., 780.
- Novotny, E. E., and Stokes, J. S., manufacture of phenol-furfuraldehyde resin, (P.), B., 572.
- Nowack, L., age-hardening precious-metal alloys, B., 563.
- Nowakowski, A., X-ray study of certain esters of cellulose and of dextrose, A., 1352.
- Nowinski, W. W. See Asher, L.
- Noyes, W. A. See Bennett, C. W.
- Noyes, W. A., reaction between nitrogen and hydrogen in presence of mercury vapour and resonance radiation of mercury, A., 1004.
- Noyes, W. A., jun. See also Meiler, J. G., and Vaughan, W. E.
- Nozaki, M., variation of agglutination titre caused by insulin. I. and II., A., 1623.
- Nuccorini, R., significance of glutamine in germination, A., 1322.
- Nuccorini, R. [with Zaccagnini, A.], early and late ripening and the acids of fruit A., 1482.
- Nuccorini, R. See also Ravenna, C.
- Nübling, R., and Mezger, R., production of gas of high calorific value, using bituminous coal in a gas producer, (P.), B., 804.
- Nüssel, H. See Bertho, A.
- Núñez, P. G., at. wt. of chromium. I. Preparation and analysis of chromyl chloride, A., 1337.
- Nungester, W. J., carbohydrate fermentation, nitrogen metabolism, and catalase production by variants of *B. anthracis*, A., 1622.
- Nussmeier, N. See Massengale, O. N.
- Nuttall, T. D., and Bentley & Jackson, Ltd., pulp beating or refining machines, (P.), B., 859.
- Nutting, P. G., stratified settling of fine sediments, A., 31.
- chemical activation of quartz surfaces, A., 1514.
- Nyanza Color & Chemical Co., Inc., delustring of artificial silk fibres or rayon, (P.), B., 815*.
- Nygaard, E. M. See Kohler, E. P.
- Nygaard, O., [pulverised fuel] furnace walls, (P.), B., 1009.
- furnace walls, (P.), B., 1051.
- Nygard, I. J. See Skinner, C. E.
- Nyiri, W., and Dubois, L., heart tonics. III. Relationships of calcium ions, hydrogen ions, and digitalis, A., 955.
- heart tonics. II. Application of biometric methods to digitalis standardisation, A., 1063.
- Nyrop, A., continuously-operating centrifugal sludge separator, (P.), B., 125.
- centrifugal sludge separator, (P.), B., 444.
- method for atomising and drying liquids, (P.), B., 696*.
- Nyrop, J. E., manufacture of cream and similar fatty products, (P.), B., 791.
- centrifugal apparatus for effecting physical or chemical changes [e.g., evaporation of liquids], (P.), B., 798.
- Nyssens, A. See Tocco, G.
- Nyswander, R. E., and Cohn, B. E., thermoluminescence of glass exposed to light, A., 520.

O.

- Oakdale, U. O. See Thompson, J. J.
- Oakley, A. T., Lupke, P., jun., and Essex Rubber Co., drying apparatus, (P.), B., 745.
- Oberbach, J., laboratory extraction apparatus made of metal, A., 1154.
- Oberhard, I. A., and Soloviev, L. T., sodium nitrate as a reagent for the salting out of colloids, A., 1517.
- Oberhard, J. G., and Schalberova, A. V., determination of small amounts of tannins, B., 1122.
- Oberlin, M. See Merck, E., Chem. Fabr.
- Obermaier, O. (Obermaier & Co.), dyeing of fibre lapp, (P.), B., 815.
- Obermaier, O. J., and Obermaier & Co., apparatus for fluid treatment of wound textile fibres, (P.), B., 987.
- Obermaier & Co. See Obermaier, C., and Obermaier, O. J.
- Obermeyer, O., dyeing machines for automatic fabric return, (P.), B., 1149.
- Obermiller, J., structure of aromatic rings in the light of orientation phenomena, A., 1028.
- Obinata, I., eutectoid transformation in relation to the mechanism of quenching and tempering aluminium bronze, B., 105.
- quenching velocities [of various liquids for metals], B., 562.
- eutectoid transformation of aluminium bronze. II. Effect of quenching velocity, B., 1072.
- Obraztsov, G. D., alkali-reserve in psychoneurotic children, A., 1469.
- relationship between ammonia content and free acidity of the urine of psychoneurotic children, A., 1469.
- Obraztsov, G. D., and Kallinikova, M. N., relations between blood-sugar and -fat in experiments with sugar loading, A., 1607.
- Obraztsov, G. D. See also Kallinikova, M. N., and Minker-Bogdanova, E. T.
- Obré, F., a special method of wine-making, B., 390.
- Obreimov, J. V., splitting strength of mica, B., 659.
- Obreimov, J. V., and De Haas, W. J., absorption spectra of the azobenzene crystal, A., 273.
- O'Brien, T. See Holden, J. H.
- O'Brien, W. J., manufacture of bleached white barytes, (P.), B., 1065.
- Obryadchikov, S. N., utilisation of acid sludge from lubricating oil bottoms, B., 130.

- Obst, P. See Meyer, D.
- Ohtulowicz, A. See Dziewoński, K.
- Ochepinti, F. See Leone, P.
- Ochi, S., chlorination of coal, B., 446.
- Ochiai, E. See Kondo, H.
- Ochiai, K., phosphorescence of gelatin and fluorescein at low temperatures, A., 1346.
- Ochiai, K. See also Kiuti, M.
- Ochiai, S. See Matsumura, S.
- Ochwat, P. See Gen. Aniline Works, Inc.
- Ockrent, C. See Butler, J. A. V.
- O'Connor, E. A. See Bowden, F. P.
- O'Connor, J. J., gas-producing apparatus; making mixed water-gas and coal-gas; gas-producing process, (P.), B., 132.
- O'Connor, T., self-preserving [condensed] milk product, (P.), B., 740.
- Oda, R., lignite. I. Analysis of lignites of varying degrees of carbonisation. II. Properties and composition of humic acid, B., 973.
- Oddo, B., and Mingoia, Q., formation and constitution of lead sodium thiosulphate, A., 875.
- Oddo, B., and Perotti, L., syntheses by means of magnesylpyrroles. Series II. XIV. Reactions between magnesylpyrroles and ketones, A., 614.
- Oddo, B., and Toffoli, C., syntheses by means of magnesylpyrroles, Series II. XIII. Reactions with phthalyl chloride and with phthalic anhydride, A., 614.
- Ode, W. H. See Schrenk, W. T.
- Odell, W. W., and Traer, G. W., jun., carbonisation and distillation of carbonaceous materials such as lignite, coal, wood, peat, etc., (P.), B., 1138.
- Odell, W. W. See also McKee, R. H.
- Odén, S. L. A., Werner, D. R. E., and Giertz-Hedström, S., hydraulic binding agent, (P.), B., 770.
- Odinzov, P. N. See Karavaev, N. L.
- Oehler, G., comparison between horizontal and vertical centrifugals, B., 843.
- Oehler, T., carbon dioxide production in soils, B., 1041.
- Öhlin, O. See Lundin, H.
- Öhman, E., X-ray investigation of the iron-manganese system, A., 988.
- X-ray investigations on the modifications of manganese, A., 1503.
- Oehme, H., and Chemische Fabrik Kalk G.m.b.H., manufacture of carbon disulphide, (P.), B., 1065.
- Oehring, F., plates of artificial resin [with intermediate veneer], (P.), B., 872.
- Oel- & Fett-Chemie Ges.m.b.H., obtaining fatty acids wholly or almost wholly free from unsaponifiable matter, (P.), B., 155.
- Ölander, A., quantum state of molecules active from the point of view of reaction kinetics, A., 708.
- bromosuccinic acid, A., 711.
- Ölander, A. See also Euler, H. von.
- Oelkers, H. A. See Rona, P.
- Oelkers, H. H., erepsin, A., 1619.
- Oelsen, W. See Tammann, G.
- Ørskov, S. L., ether-soluble acids of blood; determination of lactic acid in blood, A., 801.
- Östberg, O., citric acid content of the urine in acidosis and alkalosis, A., 1610.
- Östberg, O. See also Benni, B.
- Oesterlin, M., oxidation of glutamic acid in the animal body, A., 110.
- phenylserines, A., 471.
- Oesterreichische-Amerikanische Magnesit Akt.-Ges., production from magnesite of active calcination products [for use in the manufacture of oxychloride cements], (P.), B., 192.
- Oesterreichische Chemische Werke Ges.m.b.H. See Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler.
- Oesterreichische Schmidstahlwerke Akt.-Ges., heat-resisting [iron] alloy, (P.), B., 379.
- Oesterreichische Siemens-Schuckert-Werke, and Berger, F., electrical resistance wire, (P.), B., 246.
- Oestreicher, F. See Taterka, H.
- Oetker, W., microscopical diagnosis of marmalades, B., 789.
- Oettel, H., alkaloid determination in ergot, B., 531.
- Oettingen, W. F. von, condensation products of aromatic aldehydes with β -angelicalactone, A., 916.
- pharmacological action of various aromatic-aliphatic lactones. II. Chemical constitution and pharmacological action, A., 954.
- Oettingen, W. F. von, and Sollmann, T., production of organic acids by excised intestines, A., 252.
- Oettinger, J., use of calcium hydroxide prepared from marble in the leather industry, B., 919.
- Oexmann, H., decoration of artificial masses, (P.), B., 249.
- Offe, G., internal corrosion of hot-water systems by oxygen and carbon dioxide, and exterior injury to boilers by unsuitable fuel, B., 221.
- dry purification of [coal and producer] gas, B., 355.
- Oftedal, I., crystal structure of bastnäsite, A., 1099.
- Ogata, S., reaction of proteins. II. Action of salts in the acetic acid-sodium chloride test. IV. Anion series, A., 233.
- Ogawa, M., influence of calcium and potassium on the effect of narcotics, A., 496.
- effect of insulin. I., II., and III., A., 1069.
- Ogawa, T., and Yokota, T., action of reduced nickel and hydrogen on aromatic hydrocarbons under high pressure and temperature, A., 1565.
- Ogawa, W., Nemoto, C., and Kaneko, S., copper oxide rectifier, B., 773.
- Ogawa, Y., roasting of zinc ores, B., 866.
- Ogburn, S. C., jun., and Miller, L. F., determination of osmium by strychnine sulphate, A., 313.
- Ogg, A., space-group of alkali sulphates, A., 671.
- Ognev, N. M. See Indenbaum, V. S.
- Ogura, K., electrolytic reduction of nitriles. I., A., 335.
- Oguri, Seizo. See Matsuo, G.
- Oguri, Sutezo, and Nara, M., transition point of sodium sulphate [decahydrate] by the dynamical vapour-pressure method, A., 293.
- microscopical and chemical examination of the tissue of the bamboo stalk, A., 1325.
- hygroscopic moisture of cellulose, B., 898.
- Oguri, Sutezo. See also Matsui, M.
- O'Hara, M. See MacCallum, J.
- O'Harra, B. M., Slagle, E. A., and American Smelting & Refining Co., refractories [magnesite bricks], (P.), B., 664.
- O'Harra, B. M. See also Perkins, M. F., and Slagle, E. A.
- Ohio Brass Co. See Austin, A. O.
- Ohio Chemical Manufacturing Co. See Dawson, H. H.
- Ohio Sanitary Engineering Corporation. See Travers, J. T.
- Ohl, F., preparation of acetate artificial silk, B., 552.
- Ohle, H., production of the potassium salts of the acid sulphuric esters of α - and β -diacetonfructoses, (P.), B., 940.
- Ohle, H., and Dambergis, C., new syntheses in the sugar group. II. 6:6-Dimethylgalactose, A., 1274.
- Ohle, H., and Erlbach, H., model experiments based on the theory of alcoholic fermentation. II. Oxidation of 1:2-isopropylidene-3:6-anhydroglucofuranose, A., 70.
- Ohle, H., Erlbach, H., Hepp, H., and Toussaint, G., polyhydric alcohols. I. Constitution of the dibenzoylmannitol of Einhorn and Holland, A., 191.
- Ohle, H., and Euler, E., 3:6-anhydroglucose. I., A., 1165.
- Ohle, H., Euler, E., and Lichtenstein, R., acetone [isopropylidene] compounds of the sugars and their derivatives. XVI. Mixed acyl derivatives of isopropylidene-glucose, A., 69.
- Ohle, H., and Hecht, O., new syntheses in the sugar group. I. Preparation of 1:1-dialkylfructose derivatives, A., 1274.
- Ohle, H., and Marecek, V., comparative experiments on the ring-stability of derivatives of pyranoid and furanoid sugars. I., A., 581.
- Ohle, H., and Wolter, R. [with Wohinz, R.], α -ketogluconic acid. II., A., 744.
- Ohlendorf, H. See Grasselli Dyestuff Corp.
- Ohlhaver, G., hardening of papier maché materials, etc. [with hardened linseed oil varnish], (P.), B., 100.
- Ohlsen, J. U. A., preparation of oxychloride cement, (P.), B., 421*.
- Ohlsson, E., does antipyrin change the composition of serum-protein? A., 496.
- the two components of malt diastase, especially with regard to the mutarotation of the products formed in the hydrolysis of starch, A., 955.
- tryptophan content of sera and of fractions salted out with ammonium sulphate, A., 1201.
- Ohlsson, E., and Fredholm, H., determination of nitrates and nitrites in whey, B., 164.
- Ohlsson, E., and Nordh, G., tryptophan content of Bence Jones protein, A., 241.

- Ohlsson, E., Nordh, G., and Swaetichin, T., tryptophan content of the plasma-proteins and its relation to the sedimentation rate of Fåhræus, A., 235.
- Ohlsson, E. See also Isermann, S.
- Ohly, E. See Remy, T.
- Ohn, A., viscosity of pectin sols. II. Effects of citric acid and various sugars, B., 740.
- Ohno, K., calcium and phosphorus content of blood during the healing of fractures, A., 948.
- Ohno, K., new function of lymphocytes in the intestinal wall, especially in the intestinal follicles, A., 495.
- Ohora, S. See Kita, G., and Nakashima, T.
- Oho, T., Nakazawa, K., and Zaidan Hojin Rikagaku Kenkyujo, production of liquid insecticide containing the effective ingredient of *Derris* species, (P.), B., 298*.
- Oshima, K., and Sachs, G., X-ray investigation of the alloy AuCu, A., 1240.
- Ohta, R., gall-stone formation. II. Alkali, alkaline-earth, and metal content in bile. III. Effect of abnormal functioning of the vegetative nerve system on alkali and alkaline-earth metals in bile, A., 1207.
- Ohta, T. See Asahina, Y.
- Ohtomo, S., occurrence of vitamins-A and -B in soya-bean oil and cake, B., 1119.
- proteins and vitamins in the embryo of soya beans, B., 1129.
- nutritive value of soya-bean cake and purified soya-bean cake, B., 1129.
- Ohtsuka, K. See Nishi, T.
- Oka, S., hygroscopicity of urca, B., 895.
- Oka, S. See also Kameyama, N.
- Okabe, E. See Tomii, R.
- Okáč, A. See Dubský, J. V.
- Okade, K., vacuum tube, (P.), B., 152.
- Okamoto, K. See Fujita, A.
- Okamura, S., and Okamura, T., bile acids of rabbit-bile, A., 633.
- Okamura, T. See Okamura, S.
- Okano, O., plant secretin in Japanese vegetables, A., 646.
- Okano, V. K., and Ninomiya, M., denaturation of the protein in soya beans during the extraction of oil with alcohol. I., B., 1118.
- Okatov, A. P., adsorptive properties of silica gel [and charcoal], B., 140.
- preparation of [colloidal] silica gel, (P.), B., 613.
- Okatov, A. P. See also Saposhnikov, A. V.
- Okawa, K. See Suyeyoshi, Y.
- Okayama, Y., mechanism of the oxidation of mercury vapour. IV. Reaction outside the platinum catalyst. V. Oxidation velocity of platinum, A., 171.
- oxidation of mercury vapour. VI., VII., and VIII., A., 171.
- oxidation of mercury vapour. I. Equilibrium formula. II. Condensation of oxygen in the molecular or the atomic state. III. Condensation of oxygen in the molecular and atomic states, A., 303.
- oxidation of mercury vapour at glowing platinum, A., 431.
- O'Keeffe, J. G. See Nolan, J. J.
- Okey, R., micro-determination of cholesterol, A., 1303.
- Okey, R., Bloor, W. R., and Corner, G. W., variations in lipins of uterine mucosa of the pig, A., 636.
- Okey, R., Stewart, J. M., and Greenwood, M. L., metabolism of women. IV. Calcium and inorganic phosphorus in the blood of women at various stages of the monthly cycle, A., 952.
- Okey, R. See also Bloor, W. R.
- Okiltz, E. See Ege, R.
- Oku, M., pigment of cocoon silk of silkworm. I. Xanthophyll, A., 1466.
- Okubo, J., and Hamada, H., Raman spectra of some organic liquids, A., 522.
- Okubo, J. See also Honda, K.
- Okuda, M., glutathione content of denervated skeletal muscle, A., 362.
- Okuda, M. See also Matsumori, T.
- Okuda, Y., and Katai, K., determination of cysteine, cystine, and their derivatives in tissues and biological fluids, A., 122.
- sulphur-containing amino-acid. IX. Relation between thiol content of muscle-protein and oxygen consumption, A., 1059.
- Okunev, N., the p_H and buffering of the tissues and of the subcutaneous lymph in local venous hyperemia, A., 942.
- parenteral resorption. V. Resorption of trypan-blue from the subcutaneous connective tissue, A., 1616.
- Okuno, T., acid clays of Japan, A., 720.
- Okuno, T., electrolytic preparation of a white lead and its properties, B., 570.
- Okuyama, K. See Yamazaki, T.
- Old Ben Coal Corporation. See Greene, F. C.
- Old Colony Trust Co. See Marshall, L. K.
- Oldenberg, O., magnetic quenching of iodine vapour fluorescence, A., 16.
- Oldenburg, F. See Mohr, W.
- Oldershausen, E. F. von, effect of artificial acidification on soil and on plant growth, B., 1041.
- Oldershausen, E. F. von. See also Blanck, E.
- Oldham, J. W. H. See Irvine, (Sir) J. C.
- Oldham & Son, Ltd., and Wilde, W. D., [accumulators or other] galvanic batteries, (P.), B., 673.
- Oldright, G. L., obtaining lead from its ores or other compounds, (P.), B., 514.
- Oldright, G. L., and Miller, V., smelting in the lead blast furnace. I. Approximation of the form of the lead in slag and other products. II. Gases from the top of the furnace, B., 15.
- Oldright, G. L. See also McIntosh, D. H.
- Olef, I., enumeration of blood platelets, A., 1606.
- Olejník, H. See Veselý, V.
- Oleney, V. S. See Yushkevich, N. F.
- Olesen, H. L. See Engle, E. W.
- Olin, H. L., Kinne, R. C., Hale, N. H., and Lees, J. H., analysis of Iowa coals, B., 42.
- Olin, J. F., and Dains, F. D., action of halogenohydrins and ethylene oxide on thiocarbamides, A., 1276.
- Oliphant, M. L. E., liberation of electrons from metal surfaces by positive ions. I. Experimental, A., 834.
- Oliphant, M. L. E., and Moon, P. B., liberation of electrons from metal surfaces by positive ions. II. Theoretical, A., 834.
- Olive, T. R., chemical engineering in a modern stearic acid plant, B., 153.
- Oliveiro, C. J. See Rosedale, J. L.
- Oliver United Filters, Inc. See Cannon, H. H., and Sweetland, E. J.
- Oliveri-Mandalà, E., influence of the azide ion on the catalysis of the decomposition of hydrogen peroxide by colloidal platinum, A., 170.
- Olivet, J., diuretic brain hormone, A., 1220.
- Olivier, H. R., Bretey, J., and Herbain, M., determination of ethyl iodide in alveolar, expired, and inspired air, A., 799.
- Olivier, S. C. J., parallelism between the mobility of hydrogen in the benzene nucleus and that of chlorine in the side-chain, A., 1028, 1566.
- Ollivier, H., variation with temperature of the specific magnetic rotatory powers of corium nitrate and nickel chloride, A., 1095.
- Olmstead, L. B., and Alexander, L. T., mechanical analysis of soils without acid pre-treatment, B., 920.
- Olmstead, L. B., Alexander, L. T., and Middleton, H. E., pipette method of mechanical analysis of soils based on improved dispersion procedure, B., 295.
- Olmsted, J. M. D. See Giragosintz, G., and Mackler, H.
- Olmsted, W. H., Duden, C. W., Whitaker, W. M., and Parker, R. E., rapid distillation of lower volatile fatty acids from faeces, A., 240.
- Olmsted, W. H., Whitaker, W. M., and Duden, C. W., steam-distillation of lower volatile fatty acids from a saturated salt solution, A., 285.
- Olmsted, W. H. See also Grove, E. W.
- Olow, J., passage of insulin from the foetus to the mother, A., 504.
- Olpin, A. R., method of enhancing the sensitiveness of alkali metal photo-electric cells, A., 1230.
- Olpin, H. C. See Brit. Celanese, Ltd.
- Olschansky, E. See Stiasny, E. G.
- Olsen, C., influence of humus substances on the growth of green plants in water cultures, B., 434.
- Olsen, F., delay powder, (P.), B., 687.
- explosive composition, (P.), B., 1048.
- Olsen, F., and Aaronson, H. A., control of viscosity of solutions of cellulose, B., 96.
- Olsen, F., and Bain, C. J., method of loading explosives, (P.), B., 930.
- Olsen, G. F., recovery of entrained [petroleum lubricating] oils from filter cakes, (P.), B., 703.
- Olsen, J. C., Brunjes, A. S., and Sabetta, V. J., gases produced by the decomposition of nitrocellulose and cellulose acetate photographic films, B., 1047.

- Olsen, J. J., [nickel-iron-copper] alloy and the process of forming the same, B., 1076.
- Olsen, W. C. See Hedgepeth, J. L.
- Olson, E. S. See Bowker, R. C.
- Olsson, F., complex uranyl fluorides, A., 439.
- new type of fluoride of tervalent manganese, A., 558.
- Olsson, F. See also Stelling, O.
- Olsson, O., [valve for] base-exchanging water-softening apparatus, (P.), B., 442.
- Olzowski, W., new chlorine-silver method of disinfecting [water] in combination with the chlorine-copper method, B., 442.
- Omura, S., effect of insulin on avitaminosis-B, A., 646.
- mutual action of thyroid gland hormone and quinino hydrochloride, A., 812.
- Oneida Community, Ltd. See Murray, W. S.
- O'Neill, B. A., and Schutz-O'Neill Co., pulverising machine, (P.), B., 1134.
- Onizawa, J., behaviour of cholesterol within the animal body. II. Content, of free and ester cholesterol in various tissues of normal rabbits. III. Influence of various autogenous nervous poisons on the cholesterol content of each organ and tissue. IV. Role of the thyroid gland in the cholesterol content, A., 245.
- Onoda, K. See Kameyama, N.
- Ónody, G. See Horn, Z.
- Onorato, E., fine structure of gypsum, A., 672.
- Onorato, E. See also Parravano, N.
- Oommen, M. P., and Vogel, A. I., syntheses of cyclic compounds. VII. Stereoisomeric β -diphenyladipic acids, A., 1435.
- Oommen, M. P. See also Vogel, A. I.
- Oort, H. D. van. See Nijhoff, G. H.
- Oosting, W. A. J., colorimetric determination of hydrogen-ion concentration of soils by Kolthoff's dialysis method, B., 207.
- Ootuka, H., highly attenuated sodium flames; sodium-bromine and sodium-mercuric bromide [flame], A., 832.
- highly attenuated flames of potassium vapour with halogens, A., 832.
- Oparina, (Mlle.) M. P., preparation of 3:5-dimethylpyridine and 2:3:5-trimethylpyridine, A., 615.
- 2-methyl-5-isopropylpyridine, A., 615.
- Opfermann, E., and Feldtmann, G. A., suitability of Brazilian woods for pulp manufacture, B., 898.
- Opichtina, M. A. See Kurnakov, N. S.
- Opolski, V. See Petrenko-Kritschenko, V.
- Opotzki, V. F., determination of nitrogen in organic substances by hydrogenation, B., 355.
- Oppé, A., production of solid mixtures of alkali hypochlorite and alkali chloride, (P.), B., 373*.
- Oppenheim, E., manufacture of [ultra-violet ray-treated] chocolate, (P.), B., 216.
- Oppenheimer, E. T., so-called heart hormone, A., 118.
- Oppenheimer, F., pyrochemical Daniell cells with a sharp zone, A., 707.
- Oppenheimer, J. R., theory of the interaction of field and matter, A., 660.
- probability of radiative transitions, A., 836.
- Opwyrd, H. F. See Meulen, H. ter.
- Oranienburger Chemische Fabrik Akt.-Ges., dyeing of chrome leather with basic dyes, (P.), B., 709.
- solution of organic colloids [starch, glue, and gums], (P.), B., 296.
- dressing of textile materials, (P.), B., 709.
- manufacture of agents for wetting, cleansing, and emulsifying, and for protecting fibre, (P.), B., 1024.
- manufacture of highly stable sulphonc acids or their salts, (P.), B., 1142.
- Oranienburger Chemische Fabrik Akt.-Ges., and Chemische Fabrik Milch Akt.-Ges., production of halogen-substituted organic sulphonic acids and their salts [wetting-out and emulsifying agents], (P.), B., 276.
- protection of fibres, (P.), B., 554.
- Orékhov, A., alkaloids of *Anabasis aphylla*, A., 227.
- Orékhov, A., and Brouty, J., comparative migratory tendencies of cyclic radicals: comparison of the *p*-anisyl and *p*-tolyl groups, A., 1179.
- Orelkin, B. P. See Tschugae, L. A.
- Orelup, J. W. See Isermann, S.
- Orent, E. R., and Rask, O. S., preparation of manganese-free magnesium, A., 1137.
- Orkla Grube-Aktiebolag, separation of iron from solutions containing cobalt and rich in iron, such as those obtained by lixiviating roasted pyrites, (P.), B., 712.
- Orlandi, U. See Wigglesworth, H.
- Orlik, W., and Tietze, W., volumetric determination of copper, A., 444.
- Orlov, E. I., action of salts of carbamic acid on formaldehyde, A., 892.
- Orlov, J., coriander as a source of fatty oil, B., 1163.
- Orlov, J. E., true measure of the activity of natural waters, A., 1130.
- Orlov, N. A., and Belopolski, M. A., thermal decomposition of perhydro-fluorene and -acenaphthene in presence of hydrogen under pressure, A., 331.
- Orlov, N. A., and Lichatschev, N. D., pyrogenic decomposition of chrysene with hydrogen at high pressures, A., 203.
- berginisation of anthracene, A., 1425.
- Orlov, N. A. See also Ipatiev, V. N.
- Orlova, E. B., Chigrovskoye phosphorite deposit, A., 1267.
- Orlova, (Frl.) M., Hodaletvitch, G., and Ljabin, N., fluctuation in the ionisation of earth gases in Siberia over a period of years, A., 972.
- Orlovski, S. T., action of a series of oxidising substances on manganous salts, A., 49.
- Ormandy, W. R., recovery of acetone vapour from the air, B., 49.
- Ormandy, W. R., and Craven, E. C., density of gaseous propylene, A., 1399.
- isopropyl sulphate, A., 1404.
- Ormont, B., application of gravimetric titrations to micro-analytical determinations, A., 724.
- Ornstein, I. See Achard, C.
- Ornstein, L. S., excitation of the helium spectrum, A., 511.
- Ornstein, L. S., and Bouma, T., intensity measurements in the spectrum of nickel and cobalt, A., 1329.
- Ornstein, L. S., and Burger, H. C., intensity ratios of Balmer to Paschen lines, A., 1073.
- Ornstein, L. S., and Custers, J. F., photo-electric intensity measurements in the mercury spectrum, A., 1080.
- Ornstein, L. S., and Elenbaas, W., optical determination of the effective cross-section of helium atoms for slow electrons, A., 392.
- Ornstein, L. S., Eymers, (Miss) J. G., and Wouda, J., thermodynamics of caoutchouc. I. Caoutchouc as a system of two phases, A., 420.
- thermodynamics of caoutchouc. II. Temperature change of rubber under adiabatic stretching, A., 858.
- Ornstein, L. S., and Lindeman, H., intensity of Balmer lines as function of conditions of excitation, A., 1073.
- Ornstein, L. S., and Rekveld, J., intensity of Raman radiation and the frequency of the incident beam, A., 840.
- Ornstein, L. S., and Vermeulen, D., intensity measurements in copper arcs, A., 1329.
- Ornstein, L. S., and Wijk, W. R. van, temperature determination of the electric arc from the band spectrum, A., 655.
- Orr, J. B., rôle of vitamins and minerals in stock feeding. II. Minerals, B., 634.
- Orr, W. S., and Central Alloy Steel Corporation, thickener, (P.), B., 41.
- Orr, W. V., [self-balancing] centrifugal dryer, (P.), B., 1008.
- Orrok, G. A., economics of high-pressure steam, B., 797.
- Orrù, A., pilocarpine hyperglycemia. I., A., 370.
- Ort, J. M. See Clifton, C. E.
- Orth, O. S. See Green, F. C.
- Orth, P., drying of [sugar] beetroots by the Oxford process, B., 1084.
- Orth, P. See also Ziegler, K.
- Orthmann, A. C., and Higby, W. M., cause of vein-like protuberances on finished leather, B., 114.
- mould growth on leather and its prevention, B., 114.
- Orthmann, A. C., and Pfister & Vogel Leather Co., unhairing agent [for hides], (P.), B., 1165.
- Orthmann, W., differential calorimeter for the absolute measurement of very small quantities of heat, A., 533.
- Orthmann, W. See also Meitner, (Frl.) L.
- Ortis, J. See Balthasar, K.
- Ortlepp, J. A. L., alternating current in magnetic separation, B., 200.
- Ortner, G. See Bruhl, A.
- Orton, J. H., growth-inhibitive and preservative value of poisonous paints and other substances, B., 383.
- Orton, K. J. P. See Bradfield, A. E.
- Orton, L. H. H. See Crowther, J. A.

- Osaka, Y., and Nishio, H., equilibria in the system $\text{Ca}(\text{ClO}_3)_2 + 2\text{KCl} \rightleftharpoons 2\text{KClO}_3 + \text{CaCl}_2$ at 15° and 45°, A., 1122.
- Osaki, M. See Levene, P. A.
- Osann, B., eutectic cast iron, B., 285.
- Osato, S., and Heki, M., micro-determination of lipins in tissues, A., 1203.
- Osato, S., and Tanaka, Sinryo, iron and blood regeneration; effect of ultra-violet rays on blood regeneration and iron metabolism, A., 365.
- Osawa, A., X-ray investigation of the nickel-cobalt and iron-cobalt systems, A., 681.
- X-ray investigation of iron and manganese alloys, A., 987.
- Osawa, A., and Oya, S., X-ray analysis of iron-vanadium alloys, A., 536.
- vanadium-carbon system, A., 681.
- Osborn, H. J., and Wright, A., calibration of thermostats, (P.), B., 124.
- Osborn, T. W. B., and Stammers, A. D., Leonard Hill acetone-methylene-blue actinometer, A., 1013.
- Osborne, F. F., nepheline-gneiss complex near Egan Chute, Dugannon Township, and its bearing on the origin of the nepheline syenite, A., 1016.
- Osborne, N. S., calorimetry of a fluid, A., 884.
- Oseen, C. W., anisotropic liquids, A., 1095.
- Osgood, T. H., ranges of ionising electrons in helium, A., 6.
- O'Shaughnessy, F. R., treatment of spent gas-liquor in admixture with sewage at the sewage purification works at Cheltenham, B., 219.
- Oshima, Y., and Fukuda, Y., thermo-spring balance, A., 1266.
- coke and charcoal. I. Structure of coke and charcoal. II. and IV. Nature of carbon composing coke and charcoal. III. Reactivity of carbon materials. V. Reactivity of graphite, B., 226.
- coke and charcoal. VI. Reactivity of coke, B., 227.
- reactivity of carbon materials, B., 647.
- Osol, A. See Horn, D. W.
- Ossenbeck, A. See I. G. Farbenind. A.-G.
- Oswald, W. See Hess, K.
- Ostendorf, C. See Neuberg, I. S.
- Ostensen, F. C., new method for the study of voltage-intensity relations and its application to the mercury 2537 Å. line, A., 125.
- Osterberg, A. E., determination of glycogen in small amounts of tissue, A., 238.
- Osterberg, A. E. See also Sheard, C., and also Yater, W. M.
- Osterhof, H. J., and Bartell, F. E., three fundamental types of wetting; adhesion tension as the measure of degree of wetting, A., 1110.
- Osterhout, W. J. V., kinetics of penetration. I. Equations for the entrance of electrolytes, A., 110.
- bioelectric potentials. I. Effects of potassium and sodium chlorides on *Nitella*, A., 1325.
- Osterhout, W. J. V. See also Cooper, W. C., Damon, E. B., and Jacques, A. G.
- Ostermann, A. See Kailan, A.
- Ostermann, H. See Waehlert, M.
- Ostern, P., purines of rabbit muscle, A., 945.
- Osterstrom, R. C., purification of hydrocarbon distillates, (P.), B., 704.
- Ostertag, J., purification system for boilers, (P.), B., 539*.
- Osterwalder, A., significance of benzoic acid and sodium benzoate in the preparation of non-alcoholic fruit wines, B., 212.
- Ostrogovich, A., Walther and Vlodkovski's benzoylbiuret, A., 1179.
- benzoylcarbamide, A., 1179.
- benzoylbiuret and its conversion into phenyldihydroxytriazine, A., 1193.
- γ-triazines: synthesis of phenylaminohydroxytriazine, A., 1449.
- Ostrogovich, A., and Tanasescu, E., spectroscopic study of N-aminonaphthalimide and some derivatives, A., 88.
- Ostroshinskaja, G. I. See Tananaev, N. A.
- Ostroumov, E. A. See Lenkholt, V. A.
- Ostwald, C. T. See Neville, H. A.
- Ostwald, Wilhelm, catalysis in painting technique, B., 569.
- Ostwald, Wolfgang, systems with particularly small asymmetric emission-work for electrons, A., 864.
- theory of liquid crystals, A., 981.
- Ostwald, Wolfgang, and Erbring, H., liquid-liquid separation of sodium soaps of higher fatty acids by means of sodium sulphate and the relations of these systems to the phase rule, A., 1368.
- Ostwald, Wolfgang, and Quast, A., variation of physico-chemical properties in the region between colloiddally and molecularly disperse systems. III., A., 691, 854.
- Ostwald, Wolfgang, and Rödiger, W., solid-phase rule. I., A., 34.
- solid-phase rule. II. Solution and peptisation of oxides and hydroxides, A., 159.
- solid-phase rule in haemolysis, A., 237.
- Ostwald, Wolfgang, and Rudolph, H., colloid-chemical colour changes in organic dyes, A., 694.
- Osugi, S., nature of acidity of mineral soils, B., 160.
- Osugi, S., and Kashiwara, H., effect of various manganese compounds on the quinhydrone electrode, B., 921.
- Osugi, S., and Sano, Y., soil humus, B., 920.
- O'Sullivan, C., and Reilly, J., peat. IV. Low-temperature carbonisation under various conditions, B., 647.
- O'Sullivan, J. B., electrodeposition of nickel. I. Effect of p_{H} and of various buffering agents; the presence of oxygen in the deposits, B., 287.
- electrodeposition of nickel. II. Effect of current density and temperature. III. Effect of small quantities of iron and aluminium, B., 993.
- Oswald, M., existence of two varieties of amorphous carbon, B., 974.
- Ota, Y. See Ueno, Sei-ichi.
- Otani, S., ethyl alcohol in urine, A., 240.
- Otawara, S., coagulation of the blood, A., 944.
- Otero, M. J., influence of hydrogen-ion concentration on the fractionation of the water-soluble vitamins, A., 647.
- Othmer, D. F., corrosion testing apparatus, B., 61.
- large glass distillation apparatus, B., 635.
- trends in heat transfer, B., 1049.
- Othmer, D. F. See also Clarke, H. T.
- Otin, C., and Alexa, G., effect of temperature on single-bath chrome tanning, B., 1081, 1165.
- Otis, A. N. See Brit. Thomson-Houston Co., Ltd., and General Electric Co.
- Otis, C. H., source of diastase, B., 682.
- Otis, J. E., jun., and Alemite Corporation, filter, (P.), B., 694.
- Otis, S., Herren, W. T., and National Boiler Washing Co. of Illinois, coating of metal articles [iron pipes] with lead, (P.), B., 565.
- Otolowski, S., action of iodine and of hydrogen iodide on piperazine, A., 788.
- piperazine; action of iodine and of hydrogen iodide on piperazine, A., 927.
- O'Toole, E., carbonisation or gasification of coal, etc., (P.), B., 497.
- Otriganiev, A. V., nitrates, soil reaction, and yield of tobacco after using different fertilisers; field experiments, B., 209.
- Ott, A., heat exchange between two non-miscible liquids of similar density, e.g., benzol wash oil and water (P.), B., 273.
- arrangement for heating coke ovens, (P.), B., 852.
- Ott, A. See also Lottermoser, A.
- Ott, E., determination of ammonia in synthetic ammonia solution, B., 860.
- absorption pipette for exact gas analysis, B., 975.
- Ott, Emil, determination of polymerisation of some polymerised formaldehydes by X-ray methods, A., 1098.
- determination of the degree of polymerisation of some modifications of polyoxymethylene by X-ray methods, A., 1241.
- Ott, Emil, and Reid, E. E., auto-oxidation of lead mercaptides, A., 1404.
- reactions of some mercaptans with alkaline sodium plumbite solutions, A., 1404.
- reactions of lead mercaptides with sulphur, A., 1405.
- Ott, Erwin, racemic isohydrobenzoin and its decomposition into optical antipodes by spontaneous crystallisation, A., 667.
- Ott, Erwin, Ottemeyer, W., and Packendorff, K., dichloroacetylene, A., 1402.
- Ottemeyer, W. See Ott, Erwin, and Sartorius, F.
- Ottensosser, R., solid compounds of aldehydes with monochloro-carbamide, A., 194.
- Otterbacher, T. J., [preparation of] glutaric acid, A., 743.
- Otterbacher, T. J. See also Whitmore, F. C.
- Otterson, H. See Dickson, A. D.
- Otto, C., heating of coke ovens, (P.), B., 359*.
- coke oven, (P.), B., 852.
- Otto, Carl, decolorisation of urine, A., 633.

- Otto, *Carl*, acetone and acetoacetic acid in urine, A., 805.
detection of acetone and acetoacetic acid in urine. I., A., 1058.
- Otto, *G.* See Pringsheim, *H.*
- Otto, *H.*, and Imhof, *H.*, detection of acetone and acetoacetic acid in urine, A., 805.
- Otto, *J.* See Heuse, *W.*
- Otto, *M. P.*, manufacture of impregnated pasteboard articles, (P.), B., 100.
- Otto, *M. P.* See also Crespi, *E.*
- Otto, *R.*, furnaces for high temperature, B., 307.
- Otto, *Rudolf*, and Halter, *A.*, determination of the fat content of yeast, B., 299.
- Otto & Co. G.m.b.H., *C.*, coke ovens, (P.), B., 90, 699.
trucks for use in quenching coke, (P.), B., 274.
working of chamber ovens for production of gas and coke, (P.), B., 1012.
- Otto & Sons, Inc., *A. T.* See Jakob, *J.*, and Uhlmann, *A.*
- Ottolino, *G.*, derivatives of 2-phenylquinolinecarboxylic acids, A., 926.
- Ottow, *M.*, oral administration of insulin and diabetes mellitus in children, A., 948.
- Oupéroff, *V.* See Courtot, *C.*
- Outhouse, *J.* See Macy, *I. G.*
- Outridge, *L.* See Jones, *D. C.*
- Overhoff, *J.* See Den Hertog, *H. J., jun.*
- Overholser, *E. L.*, effects of temperature on the ripening and keeping of fruits, B., 529.
- Overlach, *H.* See Masing, *G.*
- Owe, *A. W.*, recovery of oil from fish livers and other similar materials, (P.), B., 468.
- Owen, *B. J.*, and Davies, *R. O.*, drying apparatus, (P.), B., 1096.
conveyor-dryers, (P.), B., 1134.
- Owen, *E. W. B.* See Dunlop Rubber Co., Ltd.
- Owen, *G.*, effect of concentration on the values of the dispersion and rotation constants for solutions of camphor in ethyl alcohol, A., 1094.
- Owen, *G.* See also Lowry, *T. M.*
- Owen, *S. E.*, relation of media p_H to the bacteriostatic action of dyes, B., 453.
- Owen, *W. H.*, heat-exchange apparatus, (P.), B., 490.
heat exchangers, (P.), B., 644.
- Owen, *W. L.*, and Denson, *W. P.*, acceleration of alcoholic fermentation of sucrose by vegetable charcoal and other inert substances, A., 250.
- Owen, *W. L.*, and United States, fermentation process, (P.), B., 528.
manufacture of alcohol, (P.), B., 1128.
- Ower, *E.*, micro-manometer of high sensitivity, A., 1548.
- Ow-Eschingen, *M.*, coating rubber articles with metal, particularly artificial sets of teeth, etc., (P.), B., 999.
- Owles, *W. H.*, alterations in lactic acid content of blood as a result of light exercise, and associated changes in the carbon dioxide combining power and alveolar carbon dioxide pressure, A., 950.
- Oxford Varnish Corporation, manufacture [casting] of [glucogelatin] impression transfer material, (P.), B., 473.
- Oxford Varnish Corporation, and Casto, *L. V.*, [photographically] reproducing the surface-markings of marble, wood, and other natural materials, (P.), B., 264.
[photogravure process for] reproduction of the natural appearance of articles [e.g., wood, marble] on other surfaces, (P.), B., 614, 771.
- Oxley, *A. E.* See Brit. Cotton Industry Res. Assoc.
- Oxweld Acetylene Co. See Miller, *W. B.*
- Oxyhydrique Française. See Lefebvre, *F. E.*
- Oya, *M.*, system iron-vanadium, A., 988.
metallographic investigation of vanadium steels, A., 1360.
- Oya, *S.* See Ōsawa, *A.*
- Oya, *T.* See Pincussen, *L.*
- Oyama, *T.* See Teruuchi, *T.*
- Oyamada, *T.*, syntheses of β -4-hydroxy-3-methoxyphenylethyl heptadecyl and nonadecyl ketones and 4-hydroxy-3-methoxystyryl nonadecnyl ketone, A., 476.
- P.
- P. L. & M. Co., and Morgan, *H. J.*, welding method and composition, (P.), B., 514.
- P.M.G. Metal Trust, Ltd. See Machin, *W.*
- Paal, *C.*, and Schiedewitz, *H.*, differentiation between *cis*- and *trans*-ethylenic compounds by catalytic hydrogenation, A., 740.
- Paal, *C.*, and Yao, *W. N.*, catalytic reduction of nitrosoamines, A., 336.
- Paape, *W.* See Grimmer, *W.*
- Paasch, *E.*, variations in soil acidity, especially in Heinrichauer soils, B., 876.
- Páček, *J.* See Veselý, *V.*
- Pace, *E.*, organo-aromatic derivatives of boron, A., 354.
- Pace, *J.*, inactivation of trypsin by heat, A., 956.
- Pace, *J.* See also Moelwyn-Hughes, *E. A.*
- Pacific Flush-Tank Co. See Downes, *J. R.*
- Pacini, *A. J.*, and McGuigan, *H.*, detoxification of nicotine by ultra-violet rays, A., 1063.
- Pack, *D. A.*, selection characters as correlated with percentage of sucrose, weight, and sucrose content of sugar beet, A., 965.
- Packendorff, *K.* See Ott, *Erwin*.
- Pacsu, *E.*, action of titanium tetrachloride on derivatives of sugars. II. Preparation of tetra-acetyl- β -*n*-hexylglucoside and its transformation into the α -form. III. Transformation of tetra-acetyl- β -cyclohexylglucoside into the α -form and preparation of α -cyclohexylglucoside. IV. Transformation of hepta-acetyl- β -methylcellobioside into the α -form and preparation of α -methylcellobioside, A., 1023.
- Pacsu, *E.*, and Kary, *C. von*, acetone [isopropylidene] compounds of mercaptals of monosaccharides. II. Derivatives of *d*-mannose, A., 70.
- Pacsu, *E.*, and Löb, *A.*, acetone [isopropylidene] compounds of the mercaptals of monosaccharides. III. Derivatives of *d*-galactose, A., 197.
- Pacsu, *E.*, and Stieber, *C.*, acyl migration during partial hydrolysis of mixed acylated caffeic acid, A., 212.
- Pacsu, *E.*, and Ticharich, *N.*, preparation of alkylglucosides from mercaptals of monosaccharides, A., 197.
- Pacsu, *E.* See also Hudson, *C. S.*
- Pacz, *A.*, preparation of aluminium and aluminium alloys, (P.), B., 617.
manufacture of [silicon-copper-tungsten or -molybdenum] alloys, B., 1076.
- Paderi, *C.* See Longo, *B.*
- Padoa, *M.*, and Vita, *N.*, photochemical action of intermittent and complex light, A., 1136.
- Padovani, *C.*, and Mariotti, *A.*, origin and formation of acetic acid of pyroigneous liquor. II., B., 750.
- Padovani, *C.* See also Levi, *M. G.*
- Paech, *H. O.*, differentiation between good and poor germinative capacity of seeds by chemical means, B., 785.
- Page, *A. B.* See Thimann, *K. V.*
- Page, *A. W.* See Page, *R. O.*
- Page, *H. J.*, carbon and nitrogen cycles in the soil. I., B., 875.
- Page, *H. J.* See also Arnold, *C. W. B.*, and Du Toit, *M. M. S.*
- Page, *I. H.*, preparation of cerebrosides, A., 631.
distribution of ingested ergosterol in animal organs, A., 951.
action of the parathyroid hormone on phosphatase, A., 1220.
- Page, *I. H.*, and Allen, *E. V.*, behaviour of soaps in the animal body, A., 1213.
- Page, *I. H.*, and Menschick, *W.*, effect of administration of ergosterol acetate to rabbits, A., 954.
spectroscopic demonstration of a concomitant of cholesterol from the calcified aorta, A., 1071.
absorption spectrum of cholesterol from human brains, A., 1307.
- Page, *I. H.*, and Müller, *Eugen*, new sterol in human brain, A., 1608.
- Page, *I. H.*, Pasternack, *L.*, and Burt, *M. L.*, transport of fats and of lipins by blood after administration of olein, A., 1212.
- Page, *I. H.*, and Reside, *D. M.*, action of irradiated ergosterol on tissue phosphatase, A., 1223.
effect of parathyroid extract on blood-phosphatase, A., 1624.
- Page, *I. H.*, and Rudy, *H.*, aliphatic cholesteryl esters, A., 910.
- Page, *I. H.*, and Schmidt, *Erich*, fate of choline in the organism, A., 1614.
- Page, *I. H.* See also Allen, *E. V.*, King, *E. J.*, and King, *Hazel*.

- Page, *L.*, three-dimensional periodic orbits [of an electron] in the field of a non-neutral dipole, *A.*, 1087.
- Page, *R. O.*, and Page, *A. W.*, action of trypsin on the properties of collagen, *B.*, 678.
- Pagel, *H. A.*, and Ames, *O. C.*, volumetric determination of thiocyanate with iodine and with iodate, *A.*, 1144.
- iodometric determination of small amounts of zinc, *A.*, 1264.
- Paget, *M.*, chloride determinations in cases of intestinal obstruction, *A.*, 808.
- Paic, *M.*, system $\text{HgO}-\text{SO}_2-\text{H}_2\text{O}$, *A.*, 701.
- Paige, *F. O.*, *jun.* See Moberg, *A. R.*
- Paillard, *H.* See Briner, *E.*
- Paisseau, *J.*, varnishing of [patent] leather and similar material, (*P.*), *B.*, 207.
- purification of pearl essence, (*P.*), *B.*, 713*.
- manufacture of pearl essence, (*P.*), *B.*, 827.
- Pal, *H. N.* See Chowdhury, *J. K.*
- Pal, *N. N.*, dielectric polarisation of liquid mixtures and association. I, *A.*, 1245.
- Pal, *N. N.*, and Sengupta, *P. N.*, Raman effect in some organic and inorganic substances, *A.*, 1237.
- Pal, *S. C.* See Mitter, *P. C.*
- Palaehe, *C.*, and Bauer, *L. H.*, occurrence of beryllium in the zinc deposits of Franklin, New Jersey, *A.*, 1551.
- Palacios, *J.*, Gibbs-Helmholtz equation and the concept of affinity, *A.*, 698, 1523.
- chemical constant of hydrogen, *A.*, 1356.
- Palacios, *J.*, and Cabrera, *J.*, crystal structure of calcium sulphate dihydrate (yeso), *A.*, 139.
- Palacios, *J.* See also Navano, *I.*
- Palazzo, *F.* See Palazzo, *F. C.*
- Palazzo, *F. C.*, manufacture of triple superphosphates, (*P.*), *B.*, 817.
- Palazzo, *F. C.*, and Palazzo, *F.*, simultaneous production of precipitated dicalcium phosphate and nitrates, (*P.*), *B.*, 712.
- Palfray, *L.*, and Rothstein, *B.*, cyclohexanediols. II. Esters of *cis*- and *trans*-quintol, *A.*, 84.
- stereochemical isomerides and halogeno-derivatives of cyclohexane-1,3-diol (resorcitol), *A.*, 463.
- 1,3- and 1,4-cyclohexanediols; constitution of the halogen derivatives, *A.*, 768.
- Palfray, *L.*, and Sontag, (*Mlle.*) *D.*, determination of halogens in cyclic compounds; bromo-derivatives of *m*-xyleneol, *A.*, 357.
- Palit, *C. C.*, and Dhar, *N. R.*, slow and induced oxidation of glycogen, lecithin, cholesterol, formate, oleate, stearate, and some food materials, *A.*, 550.
- photochemical oxidation of salts of some organic acids, lecithin, cholesterol, and some food materials by air, *A.*, 872.
- photochemical and induced oxidation of glycerol by air, *A.*, 1386.
- Palit, *C. C.*, Kaul, *R. K.*, and Dhar, *N. R.*, comparative influence of sunlight, iron preparations, and vitamins in the maintenance of health, *A.*, 638.
- Palitzsch, *S.*, surface tension of solutions. IV. Reciprocal influence of urethane and salts on their solution volume and solubility in water, *A.*, 153.
- surface tension of solutions. V. Surface tension, surface concentration, and activity, *A.*, 686.
- Palkin, *A. P.*, tensimetric analysis of the systems $\text{ZnSO}_4-\text{H}_2\text{O}$ and $(\text{NH}_4)_2\text{Cr}(\text{C}_2\text{O}_4)_2-\text{H}_2\text{O}$, *A.*, 543.
- double decomposition in the absence of a solvent. XI. The singular mutually irreversible system $\text{TlNO}_3 + \text{KI} \rightarrow \text{KNO}_3 + \text{TlI}$, *A.*, 861.
- Pallas, *E.*, preparation of sulphur-containing balsamic mass from acetic acid tar, *B.*, 1054.
- Pallaut, *F.*, colorimetry of oils and fats, *B.*, 466.
- Pallmann, *H.*, hydrogen[ion] activity in dispersions and colloid disperse systems, *A.*, 695.
- Pallmann, *H.* See also Wiegner, *G.*
- Palm, *J. V. O.*, and Cleveland Graphite Bronze Co., [lead bearing-metal] alloy, (*P.*), *B.*, 670.
- Palm, *J. V. O.*, Knuth, *E. C.*, and Cleveland Graphite Bronze Co., bearing alloy [with a lead base], (*P.*), *B.*, 953.
- Palmaer, *K. W.*, removal of one or more metals of the iron group from solutions containing salts of one or more of these metals [e.g., iron from aluminium salts], (*P.*), *B.*, 818.
- Palmer, *A. H.* See Nelson, *J. M.*
- Palmer, *C. W.*, Fulton, *S. M.*, and Celanese Corporation of America, [re-lustering] treatment of threads, fabrics, or other materials composed of or containing artificial filaments and products, (*P.*), *B.*, 945*.
- Palmer, *C. W.*, Fulton, *S. M.*, and Celanese Corporation of America, [dyeing of "mixed" cellulose acetate] threads, cords, and fabrics, (*P.*), *B.*, 1063*.
- Palmer, *F. C.* See Schmutz, *F. C.*
- Palmer, *H. S.*, concrete building blocks [lined with sugar-cane fibre] and their manufacture, (*P.*), *B.*, 14.
- Palmer, *J. W.* See Behr, *L. D.*
- Palmer, *K. W.*, and Kipping, *F. S.*, organic derivatives of silicon. XLII. cyclohexyl derivatives of silicane and silicoethane, *A.*, 938.
- Palmer, *L. S.*, some recent advances in the chemistry of milk, *B.*, 637.
- Palmer, *R.*, determination of osmic acid; applications to cytological technique, *A.*, 1150.
- Palmer, *R. C.*, production of naval stores from waste wood, *B.*, 655.
- Palmer, *R. C.*, and Newport Co., extraction of turpentine, pine oil, and rosin from resinous wood, (*P.*), *B.*, 337.
- Palmer, *W. G.*, action of aqueous hydrofluoric acid on silica, *A.*, 1133.
- Palmer, *W. H.* See Calder, *W. A. S.*
- Palmén, *J.*, oxidising action of ozone on hemicyclic double linking, *A.*, 1441.
- Palmer, *C.*, extracting natural alkaloids and simultaneously forming alkaloid salts by a double circulation of non-miscible liquids, (*P.*), *B.*, 1131.
- Paloheimo, *L.*, colorimetric determination of starch by means of iodine, *A.*, 1167.
- Pamart, *C.*, carbonisation of material at low temperatures, (*P.*), *B.*, 977.
- Pamfilov, *A. V.*, analysis of lead peroxide, *B.*, 12.
- Pamfilov, *A. V.*, and Alexeeva, *M. V.*, colorimetric determination of aniline, *A.*, 1605.
- Pamfilov, *A. V.*, and Fillipitschev, *G. F.*, electrochemistry of chromium, *B.*, 425.
- Pamfilov, *A. V.*, and Ivančeva, *E. G.*, determination of lead peroxide. II, *B.*, 142.
- Panagoulas, *P.* See Bauer, *L. H.*
- Panditesekere, *D. G.* See Joachim, *A. W. R.*
- Paneth, *F.*, [lead hydride], *A.*, 721.
- origin of meteorites, *A.*, 1398.
- Paneth, *F.*, and Lautsch, *W.*, preparation of free ethyl, *A.*, 735.
- Paneth, *F.*, and Urry, *W. D.*, helium. VII. Microanalysis of helium-neon mixtures, *A.*, 1543.
- Paneth, *F.*, Urry, *W. D.*, and Koeck, *W.*, age of iron meteorites, *A.*, 571.
- Panicker, *P. B.* See Varma, *P. S.*
- Panisset, *S. G. S.* See Brit. Portland Cement Manufs., Ltd.
- Panjutin, *P.*, and Rapoport, *M.*, production of pure ricinoleic glyceride, *B.*, 724.
- Pannaeh, *F.*, diffusion rings of silver dichromate and chromate in gelatin and agar-agar, *A.*, 994.
- Panopoulos, *G.*, and Petzetakis, *A.*, preparation of methylene iodide, *A.*, 735.
- Panshin, *B. A.* See Matzkov, *F. F.*
- Pansini, *G.*, rapid preparation of an antiseptic liquid, (*P.*), *B.*, 1004.
- Pansky, *A.*, preparation of gelatin, (*P.*), *B.*, 783*.
- Panteleimonov, *B.*, utilisation of saline lake waters, *B.*, 396.
- Pantin, *C. F. A.*, physiology of amoeboid movement. V. Anaerobic movement. VI. Action of oxygen. VII. Action of anaesthetics, *A.*, 247.
- Pantke, *R.* See Bornstein, *A.*, Dreysspring, *C.*, and Globig, *H.*
- Pantschenko, *A.* See Kretov, *A.*
- Pantschenko, *G. A.* See Tananaev, *N. A.*
- Pantyukhov, *N.*, determination of the detergent value of soaps, *B.*, 1162.
- Pany, *J.* See Barrenscheen, *H. K.*
- Panza, *P. T.* See Duco, *C. L.*
- Panzirev, *N.*, dryer, (*P.*), *B.*, 223, 539*.
- Paoloni, *C.* See Carughi, *A.*
- Pap, *L.* See Gömöry, *A.*
- Papadakis, *P. E.*, crystalline monomethyldiethylmercaptoglucose, *A.*, 894, 1274.
- Pape, *H.*, and Krupp Grusonwerk Akt.-Ges., *F.*, extraction of volatilisable metals from ores and metallurgical products, (*P.*), *B.*, 151*.
- Papee Machine Co. See Bullock, *F. J.*
- Paper Mill Laboratories, Inc. See Wells, *S. D.*

- Papermakers' Association, interim report of the Pulp Evaluation Committee, B., 552.
- Papeteries Navarre, method and apparatus for selectively discharging liquids according to their electric conductivity, particularly applicable for selecting pure water from water of condensation and returning it to boilers, (P.), B., 307.
- Papházy, E. von. See Lieben, F.
- Papish, J., and Hanford, Z. M., germanium and arsenic in meteorites, A., 731.
- Papish, J., Hoag, L. E., and Snee, W. E., spectroscopic detection of fluorine, A., 1143.
- Papish, J., and Holt, D. A., indium. I. Detection and determination of indium by the arc spectrum, A., 1393.
- Papish, J. See also Patnode, W. I.
- Papkov, V. V. See Malyarevski, V. I.
- Papp, S. See Groh, J.
- Paquet, A. See Hibbert, H.
- Paquet, R., hard [iron] alloy, (P.), B., 465.
- Paquin, M. See I. G. Farbenind. A.-G.
- Par, A. See Masriera, M.
- Paraffine Companies, Inc., surfacing for concrete floors [with linoleum, etc.], (P.), B., 771.
- Paramasivan, C. V. See Pillai, T. R. N.
- Paramonov, Y. I., and Nikolski, B. P., acid and alkaline extracts of soils, B., 576.
- Paranjpe, G. R. See Tawde, N. R.
- Pardo, J. H., defecation control by the hydrogen-ion method, B., 477.
- utilisation of certain nitrogen compounds by the sugar cane, B., 633.
- Pardoe, H., hot-patching [of high-temperature retorts], B., 713.
- Parikh, M. M. See Naik, K. G.
- Parfentjev, J. A., and Devrient, W., effect of arsenic on gas metabolism of insects, A., 498.
- Parfentjev, J. A., and Lippmann, H., effect of hydrogen sulphide on the respiration of insects, A., 1213.
- Parfentjev, J. A. See also Rona, P.
- Parga, I., and Arango, A., tungsten ores of Galicia. III. Wolframites from Juno, Monte Neme, Casayo, A. Veiga, and Vilacoba, A., 1397.
- Parga, I., and Lorenzo, D., occurrence of magnetite and ilmenite in sand from the banks of the River Gallego, A., 1016.
- Parhon, C. I., and Cahane, M., glycogen content of the animal liver after injection of parathyroid extract, A., 1479.
- Parhon, C. I., Cahane, M., and Márza, V., water content of blood, of muscular tissue, and of certain organs after the extirpation of suprarenal capsules in the rat, A., 492.
- Parhon, C. I., and Werner, G., phosphorus content of the cerebrum and cerebellum in parathyroid- and thyroparathyroid-ectomised dogs, A., 1469.
- Parijs, A. H., replacement of a nitro-group in 4:5-dinitromethylenedioxybenzene and 4:5-dinitroveratrole by other groups, A., 338.
- replacement of the aldehyde group in piperonal and its derivatives, A., 342.
- opening of the methylenedioxy-ring, A., 343.
- Parisi, P., influence of the reaction on the technique of the preparation of lactose, condensed milk, and ice-cream, B., 786.
- Parjono, Radsma, W., and Joenoes, M., blood of tropical inhabitants, A., 629.
- Park, B., preparation of silver-free copper, A., 1261.
- Park, C. R., effect of vulcanising temperature on the properties of a rubber-sulphur mixture, B., 1080.
- Park, J. G., and Hopkins, M. B., secondary esters and their use in lacquers, B., 1038.
- Park, J. R. See Imperial Chem. Industries, Ltd.
- Park, O. W., influence of humidity on sugar concentration in the nectar of various plants, A., 258*.
- Parke, C. S. See Harshaw, W. J.
- Parke, Davis & Co., obtaining gland extracts, (P.), B., 840.
- organic arsenic compounds, (P.), B., 967.
- Parker, A., recovery of ammonia in gas manufacture—indirect, semi-direct, and direct processes, B., 43.
- processes for the removal of phenol from ammoniacal liquor and effluent spent liquors, B., 174.
- Parker, C. K., and Standard Oil Co. of California, apparatus for lye treatment of petroleum oils, (P.), B., 894.
- Parker, F. M., bromination of hexane, A., 1268.
- Parker, F. W., determination of exchangeable hydrogen in soils, B., 341.
- Parker, H., and Brown Co., saturation of fibrous articles, (P.), B., 318.
- Parker, L. D. See Vickers-Armstrong, Ltd.
- Parker, R. E. See Olmsted, W. H.
- Parker, R. G., Vowler, J. N., and Underwood, A. J. V., dip-volume relationships in laundry washing machines containing water or detergent solutions, together with fabric, B., 369.
- Parker, T. W., and Dartmoor China Clay Co., Ltd., bleaching or decolorising of clay or other minerals, (P.), B., 1067*.
- Parker Rust Proof Co. See Allen, W. H., Baker, M. C., and Green, M.
- Parkes, D. W., and Robinson, H. W., production of soluble lead reagents, (P.), B., 144*, 1029*.
- Parkes, G. D. See Chattaway, F. D.
- Parkin, E. A. See Fisher, R. C.
- Parkin, M. See Dimbleby, V.
- Parks, C. See Pierce, J. S.
- Parks, G. S., Huffman, H. M., and Thomas, S. B., thermal data on organic compounds. VI. Heat capacities, entropies, and free energies of some saturated, non-benzenoid hydrocarbons, A., 677.
- Parks, G. S., Thomas, S. B., and Gilkey, W. A., glass. V. Heat capacity data for some complex organic glasses and liquids, A., 1359.
- Parks, G. S., and Todd, S. S., heats of fusion of some paraffin hydrocarbons, A., 143.
- Parks, G. S. See also Huffman, H. M., and Kelley, K. K.
- Parlow, measurement of the tenacity (Ergiebigkeit) of starches, especially of potato starch, B., 388.
- determination of the solubility of dextrin, B., 478.
- Parlow. See also Schulz, and Sprockhoff, M.
- Parlow, A., facilitating filtration, A., 446.
- Parmelee, C. L., oil still, (P.), B., 47.
- Parmelee, C. W., and Amberg, C. R., solubility of quartz and clay in felspar, A., 150.
- Parmelee, C. W., and Badger, A. E., rate of vitrification of porcelain, B., 819.
- Parmelee, C. W., Clark, G. L., and Badger, A. E., diffraction of X-rays by ordinary glass subjected to various treatments, B., 461.
- coloration of glass by X-rays, B., 461.
- Parmelee, C. W., and Ehman, R. G., effects of additions of zinc oxide and cadmium oxide on simple glasses, B., 819.
- Parmelee, C. W., and Monack, A. J., devitrification of glass. I. Relative stabilities of different glasses. II. Time-temperature curves of visible devitrification. III. Proposed classification of glasses, B., 460.
- solubility of feldspars in water, B., 768.
- Parmelee, C. W., and Shaw, D. T. H., effect of additions of calcium and magnesium oxides on enamel glasses, B., 819.
- Parmelee, H. M. See Upson, F. W.
- Parnas, J. K., muscle contraction, A., 1614.
- Paroni, G., behaviour of colloidal lead in experimental animals, A., 110.
- Parr, S. W., sodium peroxide as a fusion medium, A., 566.
- Parravano, N., leucite industry from the physico-chemical viewpoint, B., 186*.
- Parravano, N., and Malquori, G., products obtained by the thermal decomposition of the hydrates of ferric chloride and nitrate, A., 49.
- Parravano, N., and Onorato, E., Blanc's alumina, A., 437.
- Parrett, A. N. See Imperial Chem. Industries, Ltd.
- Parrish, P., thermal aspect of liquid-phase sulphuric acid production, B., 371.
- Parrod, J. See Girard, P.
- Parsons, (Sir) C. A., and Duncan, H. M., casting of ingots, (P.), B., 952.
- Parsons, C. S., Anderson, A. K., and Godard, J. S., reports of investigations: [Canadian] ore-dressing and metallurgical laboratories; [flotation and cyanide tests], B., 1156.
- Parsons, C. S. See also Carnochan, R. K.
- Parsons, H. E. See Leach, J. G.
- Parsons, H. T., carbamide of rat's blood in pregnancy and lactation on diets containing varying amounts of protein, A., 1313.
- Parsons, J. B. See Johnson, Warren C.
- Parsons, L. B. See Sturges, W. S.
- Parsons, L. G., and Edgar, S. H., acid-base equilibrium of the blood in acute rheumatism, A., 808.
- Parsons, M., and U.G.I. Contracting Co., automatic oil control for carburated water-gas sets, (P.), B., 1139.

- Parsons, *M.* See Humphreys & Glasgow, Ltd.
- Parsons, *T. R.*, the traces of combustible gases in human expired air, A., 942.
- Parsy, *G.*, automatic apparatus for extraction of tanning materials for [tannin] analysis, B., 731.
- Partington, *J. R.*, action of sulphur monochloride on antimony pentachloride, A., 48.
- arsenic trichloride and sulphur chloride, A., 48.
- solubility of sodium thiocyanate in alcohol, A., 406.
- fluorescent and phosphorescent substances, A., 665.
- specific heat of chlorine, A., 677.
- Partington, *J. R.*, and Simpson, *H. G.*, concentration cells in ethyl alcohol. IV. Mixtures of sodium and potassium iodides, A., 423.
- concentration cells in ethyl alcohol. V. Cells without liquid junctions, A., 1525.
- Partington, *J. R.*, and Winterton, *R. J.*, determination of the dissociation pressures of hydrated salts by a dynamical method. III, A., 700.
- Partington, *J. R.* See also Butterworth, *A. J.*, Hawkins, *F. S.*, Johnson, *E. I.*, and King, *F. E.*
- Partington, *N.*, coal-testing problems, B., 87.
- Partlow, *A.*, and Vorelone Corporation, [centrifugal] extractor, (P.), B., 886.
- Partos, *A.*, effect of curare on the carbohydrate metabolism and on the urinary secretion; protective action of the liver, A., 1063.
- Partridge, *E. M.* See Moberg, *A. R.*
- Partridge, *E. P.*, developments in nitrocellulose production, B., 10.
- continuous process for plate glass at the Ford River Rouge plant, B., 103.
- formation and properties of boiler scale, B., 1133.
- Partridge, *H. M.*, applications of the photo-electric cell to chemical analysis and control, A., 1152.
- Partridge, *H. M.* See also Yagoda, *H.*
- Partridge, *J. H.*, and Biggs, *H. C.*, glass-house refractories; study of corrosion-resisting properties, B., 766.
- Parts, *A.*, dipole moment of *s*-trinitrobenzene, A., 276.
- dipole moments of butyl halides, A., 667.
- Pascal, *P.*, and Botolfsen, *E.*, synthesis of methane from carbon monoxide and water vapour, A., 1157.
- Pascal, *P.*, and Leouir, *R.*, chemical and magnetic study of the complex derivatives of the triazine nucleus, A., 673.
- Paschen, *F.*, Lyman helium lines, A., 263.
- oxygen spectrum, O I, A., 1227, 1487.
- are spectrum of mercury Hg I, A., 1228.
- Paschke, *M.*, and Schlegries, *E.*, bonding of fine ores, burnt pyrites, etc., (P.), B., 106.
- Paschkis, *V.*, electric resistance furnaces for the iron industry, B., 107.
- Paschkis, *V.* See also Allgem. Elektrizitäts-Ges.
- Paseo, *T. A.*, Gortner, *R. A.*, and Sherwood, *R. C.*, comparison between commercially and experimentally milled flours, B., 788.
- Pascual, *J.*, preparation of dibenzoylmethane, A., 90.
- Pascual, *J.*, and Rey, *L.*, α -amioketones. I. Reduction of oximinodibenzoylmethane, A., 1586.
- Pascual, *J.* See also Dominguez, *M. L.*
- Passauer, *H.*, speed and temperature of combustion after pre-heating gas and air, B., 934.
- Passburg, *E.*, history of vacuum drying, B., 397.
- Passek, *F.*, manufacture of solutions of cholesterol or its esters or mixtures of these substances, (P.), B., 686.
- Passek, *F.*, and Bollmann, *H.*, production of dough for making bread and other baked products, (P.), B., 81.
- Passerini, *L.*, spinels. II. The compounds CuAl_2O_4 , MgAl_2O_4 , MgFe_2O_4 , ZnAl_2O_4 , ZnCr_2O_4 , ZnFe_2O_4 , MnFe_2O_4 , A., 1007.
- solid solutions, isomorphism, and symmorphim among oxides of bivalent metals. III. Systems $\text{MnO}-\text{CdO}$ and $\text{MnO}-\text{MgO}$, A., 1361.
- solid solutions, isomorphism, and symmorphim among oxides of trivalent metals; systems $\text{Al}_2\text{O}_3-\text{Cr}_2\text{O}_3$; $\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$; $\text{Cr}_2\text{O}_3-\text{Fe}_2\text{O}_3$, A., 1361.
- Passerini, *L.* See also Natta, *G.*
- Passler, *W.* See Koller, *G.*
- Passoth, *K.* See Levene, *P. A.*
- Pastac, *I.* See Truffaut, *G.*
- Pasternak, *L.* See Page, *I. H.*
- Pastore, *F.* See Ducloux, *E. H.*
- Pastorello, *S.*, X-ray analysis of the system lithium-silver, A., 1359.
- Patai, *E.* See Forro, *M.*
- Patait, *G.*, and Du Pont Ammonia Corporation, production of organic compounds containing oxygen [higher alcohols], (P.), B., 810*.
- Patai, *F.* See Klemenc, *A.*
- Patel, *A. M.*, and Desai, *B. N.*, kinetics of coagulation, A., 414.
- effect of non-electrolytes on the precipitation of thorium hydroxide from its salt solution in presence of alkali, A., 692.
- effect of non-electrolytes on colloidal thorium hydroxide by progressive dialysis of the latter in presence and in absence of electrolytes, A., 856.
- Patel, *C. S.* See Ingold, *C. K.*
- Patel, *P. P.*, and Chakravarti, *G. C.*, action of sulphur monochloride on mercaptans. III. Oxidation of unsymmetrically substituted hydrazodithiocarbonamides to thiodiazoles, A., 1453.
- Patel, *P. P.*, Sengupta, *I.*, and Chakravarti, *G. C.*, action of sulphur monochloride on mercaptans. II. Formation of organic trisulphides and hexasulphides, A., 1429.
- Patel, *Z. H.* See Bhatt, *L. A.*
- Patentaktiebolaget Gröndal-Ramén, continuous filtration, (P.), B., 170.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen m.b.H., and Deutsche Leuchtröhren-Ges.m.b.H., electric-discharge lamps, (P.), B., 825.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen m.b.H., and Wiegand, *K.*, arrangement for treating liquids with ultra-violet rays, (P.), B., 380.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen m.b.H. See also Gen. Electric Co., and Krupp, *A.-G.*, *F.*
- Páter, *K.*, the C:N ratio in various Hungarian soils, B., 253.
- Paterson, *J. H.* See Imperial Chem. Industries, Ltd.
- Patey, *A.* See Holmes, *B. E.*
- Patino Mines & Enterprises Consolidated, Inc. See Handy, *R. S.*
- Patkowski, *J.*, and Curtis, *W. B.*, isotope effect in the absorption spectrum of iodine monochloride, A., 11.
- Patnode, *W. I.*, and Papish, *J.*, vapour pressure of silicon tetra-fluoride, A., 1104.
- Patnode, *W. I.* See also Dennis, *L. M.*
- Patrick, *J. C.*, refining of used [lubricating] oil, (P.), B., 703, 854.
- Patrick, *W. A.*, adsorption of vapours, A., 1246.
- Pattabhi, *P.* See Narayan, *A. L.*
- Patterson, *A. L.*, Gibbs-Ewald reciprocal lattice, A., 272, 529.
- Patterson, *G. D.* See Williamson, *R. V.*
- Patterson, *J.*, determination of total calcium in blood-serum, A., 801.
- Patterson, *T. S.*, and Todd, *A. R.*, influence of solvents and other factors on the rotation of optically active compounds. XXVIII. Rotation dispersion of mannitol and some of its derivatives; rotation dispersion curves, A., 136.
- Patterson, *W. H.*, action of ferric chloride on *o*-, *m*-, and *p*-toluidine, A., 1605.
- Patterson, *W. S.*, resistance of electrodeposits to corrosion, with special reference to cadmium and zinc, B., 912.
- Pattillo, *D. K.*, MacMahon, *J. H.*, and Mathieson Alkali Works, Inc., operation of paper mills; manufacture of paper, (P.), B., 99.
- production of paper, (P.), B., 505.
- Patty, *F. A.* See Yant, *W. P.*
- Patwardhan, *V. N.*, amylase from *Zea mais*, A., 121.
- enzymes from the seeds of *Cassia bonducella*, A., 121.
- dextrins. I. Action of amylase from cholam (*Sorghum vulgare*) on potato starch, A., 640.
- Patwardhan, *V. N.*, and Narayana, *N.*, dextrins. II. Amylase from ragi (*Eleusine coracana*), A., 640.
- Paul, *K. F.* See Hercules Powder Co.
- Paul, *W.* See Schönberg, *A.*
- Pauli, *W.*, electrochemical constitutive relations of proteins and dyes, A., 695.
- constitution and electrochemical behaviour of proteins, A., 1603.
- Pauli, *W.*, and Wittenberger, *M.*, effect of ions of similar charge in the coagulation of colloids by electrolytes, A., 541.
- Pauli, *W.* See also Eirich, *F.*
- Pauling, *H.*, production of compressed mixtures comprising air and ammonia, (P.), B., 1109.
- Pauling, *L.*, structure of the micas and related minerals, A., 732.
- crystal structure of rubidium azide, A., 983.
- structure of some sodium and calcium aluminosilicates, A., 1240.
- crystal structure of pseudobrookite, A., 1351.
- Pauling, *L.*, rotational motion of molecules in crystals, A., 1357.
- structure of the chlorites, A., 1396.

- Paulus, L. See Lustig, E.
- Pauly, H., and Sauter, H., action of glyoxal on carbamide; new methods of formation of hydantoins, A., 1446.
- Pavelka, F., two "spot reactions" for lead, A., 182.
- sensitive reaction with apomorphine [for the detection of nitrites], A., 442.
- Pavelka, F., and Kolmer, E., specific reaction for the detection of cadmium, A., 1147.
- Pavlas, P., beet fat and beet sterol, B., 76.
- Pavlas, P. See also Stanek, V.
- Pavlik, M. See Brdička, R.
- Pavlinova, A. Y., oxidations in presence of ammonia and of cobalt salts. I. Potassium ferrocyanide. II. Potassium arsenite, A., 868.
- Pavlov, V. A., and Issakova-Keo, M. M., oxidation-reduction potentials in biological systems. I. Oxidation-reduction potentials in hen's eggs before and during development, A., 242.
- Pavlov, V. P. See Budagian, F. E.
- Pavlovitch, S., metallographic study of certain minerals of Yugoslavia, A., 1551.
- Pavlovski, C., transformation of paraffin under the influence of radioactive substances, A., 1085.
- Pavolini, T., detection of ferrocyanides and ferricyanides together with thiocyanates, A., 444.
- reactions with sodium nitroprusside, A., 1605.
- photosensitive preparations of selenium and tellurium, B., 533.
- Paweck, H., Wood's metal as cathode material in electroanalysis, A., 184.
- Paweck, H., and Stricks, W., electroanalytical method with a cathode of Wood's [fusible] metal, A., 184.
- Pawlowski, C., artificial disintegration of certain elements, A., 1495.
- Payer, T. See Mezger, R.
- Payman, J. B. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Payne, M., heat-exchanging apparatus, (P.), B., 844.
- Pázler, J., comparison of the Mitscherlich and Neubauer methods for determining the nutrient content of soils, B., 115.
- Mitscherlich's method [for determining soil nutrient values] with various crops, B., 341.
- resorption of phosphoric acid and potassium by cereal plants, B., 387.
- Peabody Engineering Corporation, and Dyer, H. T., preparation of pulverised fuel for combustion, (P.), B., 935.
- Peabody Engineering Corporation. See also London, W. J. A.
- Peachey, S. J., manufacture of accelerators for the vulcanisation of rubber and allied substances, (P.), B., 521.
- Peaker, C. R. See McBain, J. W., and Thorvaldson, T.
- Peakin, F. H. See Brady, O. L.
- Peale, R., Davies, W. S., and Wallace, W. S., separation of intermixed divided materials, (P.), B., 2.
- Peale, R., and Peale, R., jun., separation of intermixed divided materials, (P.), B., 693.
- Peale, R., jun. See Peale, R.
- Pearce, D. W., and Harris, J. A., extraction of the rare earths from gadolinite, A., 177.
- Pearee, F. J., complete gasification plant at Mill Hill, B., 129.
- Pearee, J. N., and Johnstone, H. F., adsorption of the vapours of methane and its chlorine derivatives by activated charcoal, A., 989.
- Pearce, R. M., and King, R. M., opacifying effect of some fluorides in enamel mill additions, B., 613.
- Pearsall, W. H. See Newby, H. L.
- Pearse, R. W. B., 3400 Å. band of phosphorus hydride, A., 1488.
- Pearson, F. See Prendergast, R. S.
- Pearson, G. W., magnesium-manganese alloys, B., 512.
- Pearson, H. F. See Evans, K.
- Pearson, J. T. See Sasse, A. R.
- Pearson, T. F., apparatus for feeding of molten glass, (P.), B., 14.
- Pearson, T. G., and Robinson, P. L., polysulphides of the alkali metals. I. Sodium, A., 1136.
- Pease, R. N., kinetics of the polymerisation of acetylene, A., 58.
- non-catalytic polymerisation and hydrogenation of ethylene, A., 709.
- Pease, R. N., and Durgan, E. S., kinetics of the thermal dissociation of propane and [n- and iso-]butanes, A., 709.
- Pease, W. H., production of films, (P.), B., 306.
- manufacture of materials in thin sheet form, (P.), B., 692.
- Pech, J. L., [bulbs for] incandescence electric lamps, (P.), B., 724.
- Peck, W. S. See Seyer, W. F.
- Pecker, H., alteration of crystalline sodium sulphide, A., 435.
- Pectinerie du Kervor, S.A.R.L., pretreatment of materials used in the preparation of pectin, (P.), B., 684.
- Pedersen, A. Z., and Pepsoid Corporation, porous acid-resisting materials, (P.), B., 660.
- Pedersen, S. See Anderson, Arthur K.
- Pederson, C. S., fermentation of dextrose, laevulose, and arbinose by organisms from spoiled tomato products, A., 115.
- organisms found in spoiled tomato products, B., 35.
- Pederson, C. S., and Breed, R. S., control of spoilage in tomato products, B., 35.
- Pedlow, J. T., changes in composition of material suspended in [sewage sludge] supernatant liquid, B., 266.
- Peebles, G. B., heat-insulating material, (P.), B., 1008.
- Peek, R. L., jun., solution of certain cases of the general equation of diffusion, A., 542.
- Peel, J. B., and Robinson, P. L., high-temperature products of iron with hydrogen sulphide, carbon disulphide, and hydrogen selenide, A., 179.
- Peel, J. B. See also Briscoe, H. V. A.
- Peet, G. D. See Wallace & Tiernan Co., Inc.
- Peggs, K. C., manufacture of solid carbon dioxide, (P.), B., 946.
- Pehrson, A. P. See Lloyd, F.
- Peierls, R., theory of electrical and thermal conductivity, A., 281.
- kinetic theory of heat conduction in crystals, A., 283.
- theory of conductivity, A., 847.
- Peik, L. D. See Amer. Foundry Equipment Co.
- Peiler, K. E. See Hartford-Empire Co.
- Peirce, D. D., and Yntema, L. F., electrometric studies of the precipitation of niobium and tantalum, and of molybdenum and tungsten, A., 1121.
- Peirce, W. McG. See New Jersey Zinc Co.
- Peischer, O., heat economy of coke ovens, B., 541.
- circulating-stream coke ovens, B., 974.
- Pejšová, Z. See Balaš, F.
- Pélabon, H., action of iodine vapour on phosphorus vapour; volatility product, A., 178.
- copper oxide rectifiers, B., 565.
- Pélabon, H., and Delwaulle, (Mlle.), action of mercuric oxide on manganous chloride and of manganous oxide on mercuric chloride, A., 559.
- action of mercuric chloride on solutions of cupric chloride, A., 1138.
- Pelich, N. D. See Teletov, J. S.
- Pellatt, D. L. See Rushton, J. L.
- Peltier, S. B. See Chipman, J.
- Peltola, E. See Virtanen, A. J.
- Peluffo, A., lipase activity of saliva, A., 105.
- Pelzer, H. L., Herthel, E. C., and Sinclair Refining Co., cracking of heavy hydrocarbons to produce lighter hydrocarbons and coke, (P.), B., 1056.
- Pelzer, H. L., and Sinclair Refining Co., refining of hydrocarbon oils, (P.), B., 313.
- Pelzer, H. L. See also Herthel, E. C., and Isom, E. W.
- Pénau, H., and Santenoise, D., isolation and preparation of vagotonin, a new pancreatic hormone, A., 1320.
- Pénau, H., and Tanret, G., zymosterol, a dextrorotatory sterol of yeast, A., 84*.
- reduction of mercury salts by normal urine, A., 633.
- Pender, H., and Mueller, J. H., electrical resistance and its formation, (P.), B., 246.
- Pendergast, W. L. See Heindl, R. A.
- Penfold, A. H. See Frozen Food Products, Ltd.
- Penfold, A. R., and Arneman, W. G., determination of citronellal and citral in Australian essential oils, B., 685.
- Penfold, A. R., and Morrison, F. R., Australian "tea trees" of economic value. I., B., 685.
- essential oils of *Melaleuca decora* (Salisbury) Druce, and *M. nodosa*, var. *tenuifolia* (de Candolle), from the Port Jackson district, B., 685.
- occurrence of a number of varieties of *Eucalyptus dives* as determined by chemical analysis of the essential oils. III., B., 685.
- Penfold, A. R., and Simonsen, J. L., constitution of cryptal, A., 602.
- leaf oil from *Dacrydium Franklini*, Hooker, B., 685.
- Penfold, A. R. See also Gibson, C. S.
- Penicud, J. W., diffuser for obtaining gaseous combustible mixtures, (P.), B., 650.
- crucible furnace, (P.), B., 951.

- Penin, P., Gummi-Waaren-Fabr. Akt.-Ges., and Wlceck, E., vulcanisation of finished sheets or articles of rubber, (P.), B., 205.
- Penkava, J. See Stoklasa, J.
- Penman, F. See Taylor, J. K.
- Penn, F. H., resolution of oil emulsions and reagents therefor, (P.), B., 1014.
- Pennell, R. H. L., and Wylie, A. W., filtration of water or liquid, (P.), B., 444.
- Pennell, S. See Greenwald, H. M.
- Pennetti, G., hypoglycæmic action of colloidal sulphur, A., 110.
- Penney, W. G., hydrogen and helium lines as standards of wavelength, A., 649.
- Penniman, W. B. D., lubrication of bearings and lubricants therefor, (P.), B., 846.
- Penning, F. M., ionisation of argon by metastable neon atoms, A., 128.
- Penning, F. M., and Veenemans, C. F., collision between positive ions and atoms, A., 1083.
- Pennington, H. R., and Hollup Corporation, coating for welding rods, (P.), B., 617.
- Pennsylvania Crusher Co. See Battey, W. A.
- Pennycook, S. W., hydrolytic adsorption at colloid surfaces, A., 152.
- colloidal platinum in general colloid theories, A., 157.
- colloidal platinum. VII. Effect of electrolytes on the cathoretic velocity of platinum particles, and its bearing on stability, A., 994.
- hydrolysis at the surface of colloidal platinum and its effect on coagulation and charge reversal phenomena, A., 1119.
- Pennzoil Co. See Suhr, C. L.
- Penrose, M., and Quastel, J. H., cell structure and cell activity, A., 1478.
- Penteado, J. See Villard, J.
- Pentegov, B., adsorption as a general characteristic of coal and peat; genesis, occurrence, gas content, weathering, spontaneous ignition, coke production, and hydrogenation, B., 171.
- Pepe, R. O., preparation of depositions with the aid of acid azides, A., 1039.
- Peploid Corporation. See Pedersen, A. Z.
- Pepper, R. J., and National Aniline & Chemical Co., Inc., [apparatus for] material agitation, (P.), B., 1050.
- Percibosco, F., magnesium in commercial calcium citrate, B., 764.
- Percival, E. G. V., Cuthbertson, A. C., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XXIX. Constitution of alkali cellulose. XXXI. Behaviour of cellulose towards solutions of aluminium salts, A., 1275.
- Percival, E. G. V., and Wardlaw, W., polynuclear cobalt complexes containing cobalt in the anion, A., 49.
- Percival, E. G. V. See also Hibbert, H.
- Percival, G., working of horizontal retorts, B., 271.
- Perdrigeat, A., [analyses of] alimentary cotton-seed oils, B., 1119.
- Pereira, A. C., toxicological determination of morphine, A., 1461.
- Pereverseva, T. See Vosnessenski, S. A.
- Perfection Stove Co., absorption refrigeration apparatus, (P.), B., 171.
- Periam, H. See Chamberlain, J.
- Perino, J., manufacture of a vegetable alimentary extract, (P.), B., 585*.
- Periturin, F. T., influence of liming on the composition of oats, B., 74.
- Perkin, A. G. See Cross, E. J.
- Perkin, W. H., jun. See Achmatowicz, O., Ashley, J. N., Barrett, H. S. B., and Menon, K. N.
- Perkins, M. F., Hanson, C. W., O'Harra, B. M., and American Smelting & Refining Co., treatment of mixtures of oxy-salts of arsenic, antimony, and tin, (P.), B., 1028.
- Perkins, P. P. See Youtz, M. A.
- Perkins, R. G., and Welch, H., sterilisation of water by ultra-violet light as emitted by the carbon arc, B., 883.
- Perkins, R. L. See Moses, F. G.
- Perkins, R. P. See Whitmore, F. C.
- Perks, E., manufacture of butter, (P.), B., 165.
- Perks, T. E., separation, by distillation, of miscible liquids, (P.), B., 933*.
- Perkold, F., azobenzene-4-sulphonic acid and 4-nitroazobenzene-4'-sulphonic acid, A., 1573.
- Perl, A. See Kohorn, O. von.
- Perl, K., & Steinitzer, F., Chemisch-Tech. Institut, manufacture of dextrin, (P.), B., 835.
- Perley, A. M. See Morgulis, S.
- Perman, E. P., and Urry, W. D., compressibility of aqueous solutions, A., 154.
- Permutit Co. See Behrman, A. S., Kriegsheim, H., Nordell, C. H., and Pick, E.
- Permyakov, V., clays from Shdanka (Sysran-Viasma Rly.), B., 767.
- Permyakova, V. M. See Tschitschenko, V. E.
- Perotti, L. See Oddo, B.
- Perquin, J. N. J. See Waterman, H. I.
- Perrakis, N. G., spectrophotometric study of the absorption of helium in the bright and dark sunspots, A., 649.
- influence of the developer on the properties of a photographic plate, A., 1384.
- Perraud, S. See Fromageot, C.
- Perrea, J., limiting heats of solution of hydrated sodium thiosulphate and magnesium sulphate, A., 420.
- Perrea, (Mlle.) G. See Boutaric, A.
- Perreu, J., limiting heat of solution of hydrated manganous chloride, A., 295.
- vapour tensions of aqueous solutions of some hydrated salts, A., 1121.
- Perrey, H. See Stollé, R.
- Perrier, D., and Société Anonyme Française Compagnie Industrielle des Moteurs à Explosions (C.I.M.E.), centrifugal separators, (P.), B., 171*.
- Perrin, F., fluorescence of solutions; molecular induction, polarisation, and duration of emission; photochemistry, A., 133.
- Perrin, J., unimolecular films, A., 687.
- Perrin, J., and Choucrour, (Mlle.), fluorescence sensitised in a liquid medium (transference of activation by molecular induction), A., 134.
- Perrin, M. W. See Lattey, R. T.
- Perron, M. P. See Miguet, P. L. J.
- Perrot, C., recovery of silver from old photographic films, etc., (P.), B., 264.
- Perrot, E., and François, M. T., African *Chaulmoogra* species, A., 1323.
- Perrott, G. St. J., and Gawthrop, D. B., propagation of detonation across a gas-gap between two cartridges of explosive, B., 487.
- Perrott, G. St. J. See also Tolch, N. A.
- Perrott, L. F. See Brit. Thomson-Houston Co., Ltd.
- Perrott, P. V., method of obtaining cross-sectional photo[micro]-graphs of textiles, B., 1104.
- Perry, A. T. H. See Smith, W. J.
- Perry, C. E. See Evershed & Vignoles, Ltd.
- Perry, E. O. V. See Crawford, M. E. F.
- Perry, J. See Hilger, Ltd., A., and Twyman, F.
- Perry, J. H. See Taylor, G. B.
- Perry, J. W., iodine in N. Carolina water supplies, A., 187.
- Perry, W. T. See McCallum, S. P.
- Perschke, W., structure of the triatomic radicals of thiocyanic acid and azoimide, A., 200.
- Perschke, W. See also Günther, P.
- Persoos, A. See Persoons, J.
- Persoos, J., and Persoons, A., centrifugal separators [for cream], (P.), B., 165.
- Perssianzeva, N. See Krestinski, V.
- Persson, E., X-ray analysis of copper-manganese alloys, A., 1106.
- Pertnev, N. See Schettler, I.
- Pertierra, J. M., primary industrial tar, B., 356.
- plasticity of coal after treatment by the Bergius process, B., 541.
- liquid products of the berginisation of coal, B., 974.
- Pertwee, H. A., means for disintegrating solid materials, (P.), B., 399.
- Perucca, E., electrical conductivity of metallic layers formed by cathodic sputtering, A., 280.
- Perutz, A., and Lustig, B., hydrogen-ion concentration of official test-water used in dermatology. II. Buffer capacity, A., 635.
- Perutz, A. See also Adlersberg, D.
- Perwuschin, B. J. See Charmandarian, M. O.
- Pesch, K. L., and Simmert, U., freshness of milk, B., 738.
- Pese, H. See Schaefer, C.
- Peserico, E., liberation of a histamine-like substance from the lung in oedema, A., 1311.
- Pessel, L., splayed molten cadmium coatings in gasoline storage tanks, B., 376.
- pressure-ageing of duralumin, B., 822.
- Pestalozza, P., electrolytic cells, (P.), B., 335.

- Pestalozza, U. See Soc. Ital. Pirelli.
- Pester, F., tensile properties of electrical conductor wires at low temperatures, B., 1071.
- Pestov, N. E., and Kalabekova, E. A., obtaining a concentrated triple fertiliser, B., 784.
- Pestov, N. E. See also Britzke, E. V.
- Pestrecov, K., solution of copper in solutions of potassium cyanide accelerated by X-rays, A., 716.
- Pestrecov, K. See also Dolejšek, V.
- Peter, A. See Hüttig, G. F.
- Péter, I. See Móry, B.
- Peterkin, A. G., jun., and Atlantic Refining Co., refining system [for hydrocarbon oils], (P.), B., 893.
- Peterkin, A. G., jun. See also Chillas, R. B., jun.
- Peterman, F. I. See Underhill, F. P.
- Petermann, A. See Honcamp, F.
- Peters, A. T. See Challenger, F.
- Peters, C., pulverising installations for pulverised coal, etc., (P.), B., 229.
- Peters, F. N., jun., and Fischer, Richard, preparation and properties of furan derivatives, A., 923.
- Peters, H., and Schultes, T., behaviour of silica under the influence of slow cathode rays, A., 1493.
- Peters, J. C., jun., thermal-conductivity gas-analysis apparatus, (P.), B., 747.
- Peters, J. P. See Bruckman, F. S.
- Peters, K., electrical treatment of gases, B., 44.
- Peters, K., conversion of methane into acetylene, B., 1138.
- Peters, K., and Küster, H., water-gas equilibrium under the influence of the electric discharge at reduced pressure, A., 994; B., 594.
- Peters, K., and Pranschke, A., conversion of methane or coke-oven gas into acetylene by the electric discharge, B., 848.
- Peters, K., and Weil, K., m. p. and vapour pressures of krypton and xenon, A., 986.
- Peters, K., adsorption experiments with the heavier inert gases, A., 989.
- Peters, K., separation of gases by adsorption with charcoal, B., 744.
- Peters, K. See also Fischer, Franz.
- Peters, R. A., oxygen consumption of *Colpidium colpoda*, A., 114.
- Peters, R. A. See also Gulland, J. M., and Kinnersley, H. W.
- Peters, W. G., rotary or spinning [centrifugal] extractor, (P.), B., 1050.
- Peters, W. H. See M.-O. Valve Co., Ltd.
- Petersen, E. See Diels, O.
- Petersen, G. M., turquoise-blue glaze, B., 663.
- Petersen, H., manufacture of sulphuric acid, (P.), B., 322.
- Petersen, H., determination of oxygen in iron alloys by reduction in hydrogen, B., 330.
- Petersen, I. See I. G. Farbenind. A.-G.
- Petersen, K., furnaces with revolving firegrates, (P.), B., 267.
- Petersen, W., adsorption of xanthates on carbon suspensions, A., 1108.
- Petersen, W. E., and Herreid, E. O., determination of fat in butter-milk, B., 1128.
- Peterson, A. A. See French, H. J.
- Peterson, A. R. See Holmes, W. C.
- Peterson, B. H., simultaneous adsorption of salts by colloidal aluminium hydroxide, A., 684.
- Peterson, E. G. See Piccard, J.
- Peterson, F. C. See Wise, L. E.
- Peterson, J. M., viscosities of glyceryl trinitrate and related glycol nitrates, A., 1358.
- Peterson, J. M. See also Hemingway, A.
- Peterson, P. D., quantitative extraction and separation of the plastid pigments of tobacco, A., 1628.
- Peterson, W. A., analysis of glycerin and standardisation of reagent acid, B., 109.
- Peterson, W. D. See Conant, J. B., and Johns, I. B.
- Peterson, W. H., Scott, S. W., and Thompson, W. S., reducing sugar formed from starch and cellulose by bacterial action, A., 643.
- Peterson, W. H. See also Clow, B., Hopkins, E. W., Lindow, C. W., Rosa, D. G., Scott, S. W., Skinner, J. T., and Wilson, P. W.
- Peterson, W. K. See Siles, H. R.
- Pettersson, E., furnace for casting iron and other difficultly fusible metals under pressure, (P.), B., 1075.
- Pethybridge, G. H., and Moore, W. C., "dry pickling" or "dusting" seed wheat to prevent bunt, B., 878.
- Petit, A., accumulator, (P.), B., 153.
- Petit, A., galvanic cell, (P.), B., 201.
- Petit, D. See Berthelot, A.
- Petit, F. See Girard, P.
- Petit, T. P. L., sulphur production and gas purification, B., 227.
- Petit, T. P. L., recovery of sulphur from coal gas; the Petit process, B., 1053.
- Petits-Fils de François de Wendel & Cie, liquid air or liquid oxygen explosives, (P.), B., 84.
- Petow, H., Kosterlitz, H., and Fischgold, H., active iron. II., A., 819.
- Petraschek, W., and Wilser, B., water content and degree of compactness of argillaceous rocks, A., 1155.
- Petrenko, B. G., formation of the β -phase of silver-zinc alloys, A., 147.
- Petrenko, B. G. See also Petrenko, G. J.
- Petrenko, G. J., electrical conductivity of silver-zinc alloys in the annealed condition, A., 147.
- Petrenko, G. J., and Petrenko, B. G., formation of the γ -phase in silver-zinc alloys, A., 147.
- Petrenko, G. J., Vinogorov, G., Dobrovolski, A., and Petrenko, B. G., potential of silver-zinc alloys, A., 863.
- Petrenko, S. N., relationships between Rockwell and Brinell numbers, B., 868.
- Petrenko-Kritschenko, P., characteristic of cyclic compounds, A., 463.
- Petrenko-Kritschenko, P., periodicity, A., 1017.
- Petrenko-Kritschenko, P., law of periodicity, A., 1158*.
- Petrenko-Kritschenko, V. [with Opolski, V., Diakova, M., and Lozovy], law of periodicity. V., A., 449.
- Petrety, A. W., and Aluminum Co. of America, [laboratory] filtration apparatus, (P.), B., 1135.
- Petrik, J., thermo-electric batteries, (P.), B., 1035.
- Petrik, S. M., loss of volatile products during the curing and fermentation of tobacco, B., 440.
- Petrikaln, A., effect of gas pressure on photo-electric conductivity of organic dyes, A., 1346.
- Petrikaln, A., and Hochberg, J., Raman effect of high-melting substances, A., 134.
- Petrikaln, A., Raman effect of the cyanide radical, A., 1091.
- Petroleum Conversion Corporation. See Tolman, C. P.
- Petroleum Derivatives, Inc. See Ryder, J. C.
- Petroleum Sand Products Corporation. See Schwarz, Alfred.
- Petrov, A. D., formation of petroleum of the naphthene type; transformation of fatty acids into hydrocarbons under high pressure, A., 322, 577.
- Petrov, A. D., formation of phenols from dibromides of cyclohexanones, A., 1185.
- Petrov, A. D., and Ivanov, F. Z., formation of diisobutylene from acetone at high pressures, A., 1553.
- Petrov, A. D., and Savelev, A. O., decomposition of chloropierin by heating in contact with metals, A., 431.
- Petrov, A. D., formation of phenols from dibromides of cyclohexanones, A., 777.
- Petrov, A. D. See also Ipatiev, V. N., and Saldau, P. Y.
- Petrov, G., production of sulphoaromatic fatty acids, (P.), B., 155.
- Petrov, G., treatment of mineral and naphtha oils, (P.), B., 855*.
- Petrov, G., separating and purifying sulphonic acids of high mol. wt., (P.), B., 855*.
- Petrov, G., naphthenic sulphonic acids in the scouring of soiled fabrics and fibrous materials, B., 1147.
- Petrunkin, A. M., and Petrunkin, M. L., determination of adrenaline in the blood, A., 1623.
- Petrunkin, M. L. See Petrunkin, A. M.
- Pettengill, G. F. See Tartar, H. V.
- Pettersson, C. G., preservative for stored potatoes and other roots, (P.), B., 347.
- Pettinos, G. F., grinding mill, (P.), B., 1008, 1136*.
- Petty, E., and De Laval Separator Co., purification of wax distillates, (P.), B., 704.
- Petzetakis, A. See Panopoulos, G.
- Pevely Dairy Co. See Mortland, H. E.
- Pew, A. E., jun., and Sun Oil Co., deodorisation of petroleum, (P.), B., 1102.
- Pew, A. E., jun., Thomas, H., and Sun Oil Co., mineral oil distillation, (P.), B., 450.
- Pew, J. H., and Sun Oil Co., cracking of mineral oil, (P.), B., 499.
- Pexton, S. See Gas Light & Coke Co., and Hollings, H.
- Peyer, W., pine kernels, pistachio nuts, and their oils, B., 247.
- Peyer, W., and Rosenthal, K., jalap tuber and scammony root, B., 639.
- Peyresblanques, G. See Brus, G.

- Pezold, *E. von*, determination of the acid constituents of shale oil and its residues, B., 1099.
- Pfähler, *A.* See Brigl, *P.*
- Pfaff, *H. E.* See Metherell, *A.*
- Pfanhauser, *J.*, and Tomaszewski, *S.*, analysis of titanium white, B., 997.
- Pfanhauser, *W. A. F.*, production of regular coatings of metals on articles by cathodic disintegration, (P.), B., 199.
- Pfau, *R.* See Wilke-Dörft, *E.*
- Pfaudler Co., deodorising and similar treatment of milk, cream, and other liquids containing butter fat, (P.), B., 838.
- Pfaudler Co. See also Jacobsen, *J. N.*
- Pfeffer, *E.* See Gen. Aniline Works, Inc.
- Pfeffer, *F. D.*, Trotter, *F.*, and United States Gypsum Co., wet-mixing method and apparatus, (P.), B., 1008.
- Pfefferkorn, *K. W.*, film evaporators, (P.), B., 3.
- Pfeiffer, *F.*, and Zeiss, *C.*, refractometer for liquids, (P.), B., 696*.
- Pfeiffer, *G.*, transformation of ionised and biological iodine. II., A., 107.
- hydrogen peroxide-sulphuric acid decomposition for micro-determination of iodine, A., 122.
- cholesterol of protoplasm. II. Ox brain. III. Ox erythrocytes, A., 945.
- cholesterol of protoplasm. IV. Investigation of ox liver, A., 1204.
- Pfeiffer, *G.* See also Klein, *W.*
- Pfeiffer, *P.*, constitution of nickel dimethylglyoxime, A., 1165.
- co-ordination value of multivalent negative radicals, A., 1502.
- Pfeiffer, *P.*, Angern, *O.*, Wang, *L.*, Seydel, *R.*, and Quehl, *K.*, theory of dyeing, A., 779.
- Pfeiffer, *P.*, and Buchholz, *H.*, inner complex salts of α -benziloxime, A., 345.
- Pfeiffer, *P.*, Du Plessis, *D. J.*, Richarz, *J.*, and Stallmann, *B.*, activation experiments with stilbenecarboxylic acids, A., 1181.
- Pfeiffer, *P.*, and Eistert, *B.*, substitution of bromine by chlorine in organic halogen compounds, A., 333.
- Pfeiffer, *P.*, Fleitmann, *T.*, and Hansen, *R.*, position of beryllium and magnesium in the periodic classification of elements, A., 1536.
- Pfeiffer, *P.*, Fleitmann, *T.*, and Inoue, *T.*, theory of metal hydrate ions, A., 1390.
- Pfeiffer, *P.*, and Lübke, *E.*, benzoylfluorenes, A., 779.
- Pfeiffer, *P.*, Quehl, *K.*, and Tappermann, *F.*, brazilin and hæmatoxylin. X. Compounds of the α -phenoxy- α' -phenylacetone series, A., 1041.
- Pfeiffer, *P.*, Seydel, *R.*, and Hansen, *A.*, triple spiran system, A., 89.
- Pfäffner, *E.*, and Radio Patents Corporation, metallising the surfaces of insulating bands, (P.), B., 200*.
- metallising the surfaces of insulating bands particularly for use in electrical condensers, (P.), B., 466.
- applying a firmly-adhering metal coat to insulating plates, particularly for use in electric condensers, (P.), B., 571.
- Pfäffner, *J. J.*, and Myers, *V. C.*, colorimetric determination of guanidine bases in blood, A., 1055.
- Päsher, *F.* See Enz, *W.*
- Pfäster & Vogel Leather Co. See Orthmann, *A. C.*
- Pflug, *H.* See Deuts. Petroleum A.-G.
- Pforte, *W. S.*, structure of cosmic radiation. I., A., 1496.
- Pfengle, *O.* See Reihlen, *H.*
- Pfrunder, *V. R.* See Bürki, *A. F.*
- Pfund, *A. H.*, infra-red filters of controllable transmission, A., 1235.
- Pfund, *A. H.* See also Devore, *H. B.*, and Gamble, *D. L.*
- Pfundt, *O.* See Jander, *G.*
- Phair, *R. A.*, Bucaria, *B.*, and Kohnstamm & Co., Inc., *H.*, laundering textile fabric, (P.), B., 101.
- Phelps, *G. W.* See Taylor, *Horace F.*
- Phelps, *S. M.*, and Hughes, *A. C.*, rapid method for estimation of the alumina content of diaspores and high-alumina clay, B., 239.
- Philadelphia Quartz Co. See Edgerton, *L. B.*
- Philbrick, *B. G.*, variation of phenol coefficients of coal-tar disinfectants with different test organisms, B., 884.
- Philbrick, *F. A.*, hydrochloric acid solutions of iodine monochloride, A., 1520.
- Philip, *G. G.* See Guthrie, *J. M.*
- Philip, *J. C.*, reversibility of the adsorption process and the thickness of the adsorption layer, A., 153.
- Philip, *J. C.* See also Aldis, *R. W.*
- Philip Carey Manufacturing Co. See Fisher, *H. C.*
- Philipp, *H. J. F.*, gasifying fuels in a molten-ash-type producer, and simultaneously treating ores or residues, (P.), B., 892.
- Philipp, *K.*, apparatus for leaching ores, burnt pyrites, etc., (P.), B., 198.
- Philipp, *K.* See also Donat, *K.*, and Erbacher, *O.*
- Philipp, *O.*, refractory mortars, B., 374.
- Philippi, *E.*, and Hernler, *F.*, action of papain on hæmocyantin from *Helix pomatia*, A., 1461.
- micro-electrolytic determination of copper in organic substances, A., 1546.
- Philippi, *E.*, and Thelen, *R.*, [preparation of] pyromellitic acid, A., 774.
- Philippi, *E.* See also Hernler, *F.*
- Philippi, *K.* See Tillmans, *J.*
- Philippon, (*Mlle.*) *S.* See Labrousse, *F.*
- Philippsonian, *C.*, [copper-nickel] alloys, (P.), B., 332.
- Philipsborn, *H. von*, analytical determination of the isomorphous variation in rock-forming minerals, A., 733.
- Phillips, *A. J.*, α - β -transformation in brass, B., 615.
- Phillips, *D. J. P.* See Non-Inflammable Film Co., Ltd.
- Phillips, *F. C.*, pericline and acicline-A twins in the acid plagioclases, A., 570.
- mineralogical and chemical changes induced by progressive metamorphism in the Green Bed group of the Scottish Dalradian, A., 1156.
- Phillips, *H.* See Clarke, *S. G.*, Houssa, *A. J. H.*, and Kenyon, *J.*
- Phillips, *J. B.* See Hibbert, *H.*
- Phillips, *J. G.*, method of treating clays to overcome drying defects, B., 863.
- Phillips, *J. G.* See also Fréchette, *H.*
- Phillips, *J. W. C.* See Mumford, *S. A.*
- Phillips, *M.*, lignin. IV. Lignin from oat hulls, A., 458.
- resinous condensation product from lignin and furfuraldehyde, (P.), B., 780.
- Phillips, *M.*, Weihe, *H.*, Jones, *D. B.*, and Csonka, *F. A.*, demethoxylation of lignin in the animal body, A., 245.
- Phillips, *M.* See also Cohen, *B.*, and Csonka, *F. A.*
- Phillips, *M. A.*, 1-substituted benzimidazoles, A., 223.
- arsinic acids of *p*-aminophenol, A., 1300.
- hydrolysis of diacetyl-*o*-diamines, A., 1448.
- Phillips, *R. O.* See Forestal Land, Timber & Railways Co., Ltd.
- Phillips, *W. B.*, and Cross, *W. M.*, heat exchanger, (P.), B., 745.
- Philp, *J. H.* See Bigelow, *H. E.*
- Philpott, *M.* See Schidrowitz, *P.*
- Phipps, *T. E.* See Ginnings, *D. C.*, and Kurt, *O. E.*
- Phönix Röntgenröhrenfabrik Akt.-Ges., screen inside X-ray tubes, (P.), B., 246.
- Phragmén, *G.* See Westgren, *A.*
- Pia, *C.*, and Polini, *G.*, flooring [composition], (P.), B., 614.
- Piatnicki. See Schmuk, *A.*
- Piatnitzki, *M. P.*, fatty oil from tobacco seeds, B., 429.
- Piatti, *L.*, new methods of gas washing. VI. Viscosity of the absorbent, B., 1.
- Piatti, *L.*, and Spreckelsen, *O.*, adsorption of cresol by active carbon, B., 547.
- Piaux, *L.*, quaternary iodides from phenylglycine, and the corresponding betaines, A., 594.
- Piaux, *L.* See also Freudler, *P.*
- Picard, *P.*, composition of plants containing methyl salicylate glucosides, A., 507.
- Piecard, *A.* See Cabrera, *B.*
- Piccard, *J.*, Peterson, *E. G.*, and Bitting, *C. D.*, determination of oxides of nitrogen (except nitrous oxide) in low concentration, A., 1144.
- Piccardi, *G.*, spectrographic detection of bismuth in the ashes of animal organisms, A., 313.
- reaction between magnesium and water at high temperatures, A., 1006.
- Piccardo, *C.*, filtering and decanting apparatus, (P.), B., 493*.
- Pichler, *H.* See Fischer, *Franz.*
- Pick, *E.*, and Permutit Co., gas-analysing apparatus, (P.), B., 493.
- Pick, *H.*, recovery of celluloid and silver from scrap films, (P.), B., 841.
- Pickard, *H.* See South Metropolitan Gas Co.
- Pickard, *J. A.*, filters, (P.), B., 306.
- metafiltration and the brewing industry, B., 479.
- Pickard, *J. A.*, and Rogers, *F.*, filters, (P.), B., 1096.
- Pickard, *J. A.* See also Hele-Shaw, *H. S.*
- Pickard, *J. N.* See Barritt, *J.*

- Pickard, R. J., and Pierce, L. F., micro-determination of blood-sugar, A., 1463.
- Pickat, A. K., biochemistry of the blood in neuromuscular fatigue, A., 950.
- Pickett, (Miss) L. W. See Clark, G. L.
- Pickup, H., and Claringbold, W. E., sanitary cleansing and deodorising agent, (P.), B., 796.
- Pickworth, F. A. See Woodhouse, D. L.
- Picon, action of high temperatures on metal sulphides, A., 47.
- Picon, M., organic salts of bismuth: preparation of easily decomposed compounds, A., 192.
- mercury camphorcarboxylate and derivatives, A., 1196.
- solubilisation of some metallic salts of camphorcarboxylic acid in organic solvents, A., 1294.
- Pictet, A., synthesis of sucrose, A., 583.
- existence of two modifications of octa-acetylsucrose, A., 1166.
- Pictet, A., and Vogel, H., nature of coloured products formed by the action of iodine on starch and its derivatives, A., 72.
- Pidgeon, L. M., and Maass, O., adsorption of water by wood, A., 684.
- penetration of water vapour into wood, B., 665.
- Pied, H. See Azéma, M.
- Piekara, A., relation between dielectric constant of emulsions, volume concentration of the dispersed phase, and degree of dispersion, A., 156*.
- general character and form of the formula for the dielectric constant of non-homogeneous mixtures, A., 979.
- dielectric constants of gold and mercury sols, A., 1113.
- Pielemeier, W. H., Pierce acoustic interferometer as an instrument for the determination of velocity and absorption, A., 23.
- ultrasonic velocity and absorption in oxygen, A., 1507.
- Pien, J. See Martin, F.
- Pienkowski, S., structure of cellulose fibres of wood, A., 1242.
- Pieper, B. See Karrer, P.
- Pier, M. See I. G. Farbenind. A.-G.
- Pier Process Corporation. See Murdock, W. J.
- Pieraerts, J., and L'Heureux, L., Agostini's [colour] reaction [for detection of dextrose], B., 343.
- Pieraerts, J., and Tanret, G., seed of *Tetrapleura thoningii*, A., 966.
- Piérard, S., testing of sands for steel castings, B., 909.
- Pierce, G. W. See Drake, F. H.
- Pierce, H., machines for treating fabrics by drying, dry-cleaning, dyeing, or washing, (P.), B., 458.
- drying machines for fabrics; machines for treating fabrics by drying, dry-cleaning, dyeing, or washing, (P.), B., 657.
- Pierce, H. B. See Murlin, J. R.
- Pierce, J. A., examination of oils in ultra-violet light, B., 725.
- Pierce, J. S., and Geiger, M. B., titrimetric determination of magnesium, B., 659.
- Pierce, J. S., and Nave, E. D., confirmatory test for zinc, A., 881.
- Pierce, J. S., and Parks, C., effect of temperature on the rate of reduction of furfuraldehyde with the catalyst from $\text{PtO}_2 \cdot \text{H}_2\text{O}$, A., 40.
- Pierce, L. F. See Pickard, R. J.
- Pieroh, K. See I. G. Farbenind. A.-G.
- Pierre, L. See Brasseries Nantaises.
- Pierre, W. H., neutralising values and rates of reaction with acid soils of different grades and kinds of liming materials, B., 474.
- Pierr, J. See Dosios, K.
- Pierron, J. See Courtot, C.
- Pierucci, M., ionisation potential and spectroscopic evidence, A., 1492.
- Pietenpol, W. B., and Miley, H. A., electrical resistivities and temperature coefficients of lead, tin, zinc, and bismuth in the solid and liquid states, A., 280.
- Pieters, H. A. J., new laboratory materials. II., A., 884.
- coking power and swelling of coal. I., B., 308.
- determination of sulphur in illuminating gas, B., 401.
- determination of phenol in effluent waters, B., 648.
- viscosity of pitch, B., 648.
- softening of ash of solid fuel, B., 697.
- properties of coal which influence carbonisation, B., 1051.
- Pieters, H. A. J., and Mannens, M. J., determination of nitrous and nitric acids in concentrated sulphuric acid, B., 1149.
- Pieters, H. A. J., and Meylink, J. A., [gas] interferometer as an aid to factory control, B., 43.
- Pieters, J., vertical continuous distillation retorts, (P.), B., 403.
- Piette, O., dry-cooling of coke, etc., (P.), B., 597.
- production of ammonium sulphate, (P.), B., 661.
- Piette, O., and Union Chimique Belge, Société Anonyme, gaseous exothermal catalyses, (P.), B., 889.
- Piette, M., influence of neutral salts on the separation of proteins by the acetone method, A., 235.
- effect of non-electrolytes on the stability of animal fluids, A., 800*.
- Pietzsch, A., Adolph, G., and Buffalo Electro-Chemical Co., Inc., alkaline oxidant and [its storage in] aluminium metal [vessels], (P.), B., 1109.
- Pietzsch, A. See also Adolph, G.
- Pietzsch, K. F., and Selden Research & Engineering Corporation, filter, (P.), B., 353.
- Piggot, C. S., isotopes and geologic time, A., 1233.
- Piggott, H. A. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Piggott & Co., Ltd., T., Martin, J. W., and Banford, F. E., apparatus for bringing liquids and gases into intimate contact, (P.), B., 399.
- Pignot, A. See Aubert.
- Pikazin, Y. S. See Alexeevski, K. V.
- Pike, R. D., multi-stage process for burning Portland cement clinker, B., 374.
- volatilisation of phosphorus from phosphate rock. I., B., 459.
- volatilisation of phosphorus from phosphate rock. II. Volatilisation of phosphorus and potash in a blast furnace. III. Calculations of performance of a blast furnace for volatilisation of phosphorus and potash, B., 508.
- manufacture of electrolytic iron, (P.), B., 670.
- production of electrolytic iron from scrap, (P.), B., 721.
- manufacture of dicalcium phosphate, (P.), B., 861.
- metallurgical furnace, (P.), B., 1033.
- metallurgical process [for treatment of copper sulphide ores], (P.), B., 1076.
- Pike, R. D., and Cummings, R., purification of [removal of boric acid from] monopotassium phosphate, (P.), B., 1109.
- Pike, R. D., West, G. H., Steck, L. V., Cummings, R., and Little, B. P., electrolytic iron from sulphide ores, B., 717.
- Pike, R. D. See also Cummings, R.
- Pikl, J. See Späth, E.
- Pilaud, (Mlle.) M. See Freudler, P.
- Pilcher, C., Clark, Gurney, and Harrison, T. R., congestive heart failure. III. Buffering power of blood and tissues, A., 1468.
- Pilcher, C. See also Harrison, T. R.
- Pilgrim, F. D. See Hurd, C. D.
- Pilkington Bros., Ltd., Waldron, F. B., and Griffin, J. H., grading of abrasives for use in continuous glass-grinding machines, and apparatus therefor, (P.), B., 1153.
- Pilkov, A. N., adsorption of radioactive by inactive substances, A., 991.
- Pillai, K. V. See Chopra, R. N.
- Pillai, T. R. N., De, P. K., Paramasivan, C. V., Rao, M. G., Rafay, S. A., and Sathe, T. R., utilisation of waste vegetation. I. Preliminary study of *Lantana camara*, L., B., 681.
- Pillai, T. R. N., and Subrahmanyam, V., some peculiar low-lying soils of Central Travancore, B., 340.
- Pillarsky, R. See Schiemann, G.
- Pillet, (Mme.) See Bachrach, E.
- Pilling, N. B. See Westinghouse Electric & Manuf. Co.
- Pilny, A., production of negative colour-record kincematograph films, (P.), B., 122.
- Pilot Laboratories, Inc., bleaching of [organic] materials, (P.), B., 657.
- bleaching of foodstuffs, (P.), B., 792.
- bleaching methods and compositions [peroxides of higher fatty acids], (P.), B., 1106.
- Piña de Rubies, S., new lines of samarium in the arc spectrum at normal pressure between λ 3100 and 2200 X., A., 511*.
- Piña de Rubies, S., and Dorronsoro, J., spectroscopic analysis of Spanish manganese ores, A., 183.
- Pincussen, L., and Iwatsu, T., changes of metabolism during irradiation. VI. Changes of liver autolysis in irradiated animals, A., 250.
- Pincussen, L., and Kolodny, S., analysis. X. Determination of fats, A., 1326.
- Pincussen, L., and Oya, T., enzymes and light. XV. Hydrolysis of lecithin by the lecithase and the phosphatase of takadiastase preparations. XVI. Optimum p_H for aldehydase of milk and influence of light on this enzyme, A., 250.

- Pincussen, L., and Roman, W., influence of irradiation on the iodine and bromine fractions of the animal body, especially after administration of iodine, A., 371.
analysis. XI. Determination of silver in organic material, A., 1486.
- Pincussen, L., and Takuma, T., changes of metabolism during irradiation. VII. Effect of light on butyrase from liver and heart, A., 1216.
- Pine, P. K. See Mears, B.
- Pinel, E., sizing of fibrous materials, (P.), B., 763.
- Piners, W. See Bauer, K. H.
- Pines, C. C., tests for peroxides [in ethyl ether], B., 639.
- Pines, C. C. See also Leffmann, H.
- Pink, F., apparatus for separating liquids of different densities, (P.) B., 3, 493*.
- Pinkey, K. G., tyrosinase in crustacean blood, A., 491, 1055.
- Pinkus, A., chemical activity of substances in the nascent state, A., 1097.
- Pinkus, A., and Berkolaiko, N., solubility of silver chloride in aqueous solutions of potassium chloride, A., 1246.
- Pinkus, A., and Katzenstein, (Mlle.) M., determination and separation of mercury by means of cupferron, A., 1011.
- Pinner, W. L., and Baker, E. M., bent-cathode test for control of cyanide copper baths, B., 667.
- Pinnoek, H. T. See Jeavons, E. E.
- Pinnow, J., decomposition of sulphite-quinol solutions and action of aged solutions, A., 429.
currant wine, B., 390.
- Pinsl, H., supposed influence of copper in the determination of sulphur in iron and steel, B., 195.
- Pinterović, Z. See Mikšić, J.
- Pinto, L., method for differentiating natural guano from its substitutes, B., 386.
improvements in the Kühn method for the mechanical analysis of soils, B., 733.
- Pinto, S. S. See Beber, M.
- Pintsch Akt.-Ges., J., water-gas generators, (P.), B., 91.
distillation of liquid materials, (P.), B., 126.
apparatus for generating water-gas, (P.), B., 177.
recovery of tar from gases, (P.), B., 230.
- Piotrowski, H. L., quantitative separation of zinc from magnesium, A., 563.
- Piotrowski, W. J., and Winkler, J., refractometric analysis of paraffin products, B., 5.
cracking of gaseous saturated hydrocarbons, B., 309, 850.
- Piovanio, V., micro-determination of urea in blood and other body fluids, A., 359.
effect of lecithin and cholesterol on protein metabolism, A., 1060.
- Piper, C. S., and Poole, H. G., mechanical analysis of soils, B., 73.
- Piper, H. A. See Murlin, J. R.
- Piper, S. H., and Malkin, T., crystal structure of normal paraffins, A., 1241.
- Piper, S. H. See also Francis, F.
- Piper, W. E., causticising, B., 816.
- Pipik, O. See Shiperovich, V.
- Pirani, M. See Gen. Electric Co.
- Piraud, Y. M., purification of kaolin and clays, (P.), B., 240, 327.
- Pire, L. R., low-temperature distillation of Asturian coal, B., 541.
- Pirie, N. W., preparation of glutathione from yeast and liver, A., 362.
- Pirkmaier, B. See Samec, M.
- Piriot, J. M. See Blanchetière, A.
- Pirnie, M., uses of aeration in water purification, B., 304.
- Piron, E., [coal]-distillation apparatus, (P.), B., 131.
- Pirrone, F. See De Fazi, R.
- Pirsch, J. See Faltis, F.
- Pirschle, K., nitrates and ammonium salts as sources of nitrogen for higher plants at constant p_{H} , A., 262.
nitrates as a source of nitrogen for the growth of yeast, A., 642.
- Pirschle, K., and Mengdehl, H., dependence of the reducing action of fermenting yeast on the source of nitrogen, A., 1477.
- Pirtea, T. I. See Longinescu, G. G.
- Pisariček, A. See Štěrbá-Böhm, J.
- Pisarshevski, L. V., mechanism of catalytic action of metals and metal oxides, A., 430.
dissociation of the atoms of metals into ions and electrons, and the osmotic theory of the origin of the electric current, A., 657.
- Pisarshevski, L. V., electronic nature of the catalytic decomposition of potassium chlorate by oxides and metals, A., 1003.
mechanism of catalysis, A., 1531.
- Pistor. See Mezger.
- Pistorius, O., grates for gas producers, (P.), B., 852.
- Pi-Suñer Bayo, C., different action of alkali salicylates and benzoates and of *p*-hydroxybenzoic esters on micro-organisms, A., 253.
formation of methylglyoxal during the decomposition of sugar by maceration juice, A., 958.
action on methyl- and phenyl-glyoxal of the enzymes of green leaves; limo-tree leaves, A., 1065.
- Pitkin, G. P. See Metz Labs., Inc., H. A.
- Pitman, G., general utility laboratory still, A., 1549.
- Pitman, G. A., and Cruess, W. V., hydrolysis of pectin by various micro-organisms, B., 118.
- Pitschner, K., and American Chain Co., Inc., testing metallic coatings, (P.), B., 915.
- Pitt, W. J., [projection] means for [electrolyte in] electroplating [baths], (P.), B., 109.
- Pitter, A. V. See McBain, J. W.
- Pitts, H. C., and Johnson, H. R., body-fluids in cancerous and non-cancerous individuals, A., 1206.
- Pittsburgh Plate Glass Co., manufacture of sheet glass, (P.), B., 190.
- Pittsburgh Plate Glass Co. See also Gelstharp, F., and Raleigh, W. P.
- Pittsburgh Research Corporation. See Moore, W. E.
- Pitzler, H. See Benrath, A.
- Piver, W. C., and Simpson, F. M., manufacture of commercial calcium arsenate [insecticide], (P.), B., 661.
- Pivovarsky, E., alterations in the properties of hematite pig iron cast from the first melting, B., 991.
- Piwetz, W. See Kremann, R.
- Placquet, G. See Textile & Filature Soc. Anon.
- Placzek, G., theory of the Raman effect, A., 15.
- Planchon, V., nitration of wood pulp, etc., (P.), B., 1048.
- Planck, M., the liquid junction of dilute electrolytes, A., 1124.
- Planner, B., and Schlötter, M., electrolytic cadmium deposits as a rust preventative, B., 377.
- Plant, S. G. P., derivatives of dihydropentindole, II., A., 93.
structure of the octahydrocarbazoles, A., 1192.
- Plant, S. G. P., and Rosser, R. J., stereoisomerism in polycyclic systems. VII. Reduction of 7:8:9:10-tetrahydroheptaquinoline, A., 1297.
- Plantinga, P., carbonisation of material containing oil, fat, tar, etc., (P.), B., 272.
- Plass, F. See Zehenter, J.
- Plassmann, J., and Chemisch-Technische Ges.m.b.H., retort for carbonising bituminous fuels, (P.), B., 48*.
- Plasteridge, W. N., and Rettger, L. F., carbon dioxide. V. Mechanism responsible for the preservative action of carbon dioxide on diphtheria toxin, A., 252.
- Plastic, Inc., mineral fibre paper and its manufacture, (P.), B., 100.
manufacture of mineral fibre articles, (P.), B., 236.
mouldable material [from kelp], (P.), B., 319.
- Platen-Munters Refrigerating System Aktiebolag, absorption refrigerating apparatus, (P.), B., 445.
heat-exchanging devices, particularly for condensers of refrigerating apparatus, (P.), B., 972.
- Platen-Munters Refrigerating System Aktiebolag. See also Electrolux, Ltd.
- Platonov, G., influence of unsaturated fatty acids on the virulence of tubercle bacilli, A., 1068.
- Platonov, M. S., adsorption of organic acids on platinum-black, A., 28.
- Platonov, M. S. See also Lebedev, S. V.
- Platsch, M., [porous] cement, concrete, gypsum, etc., (P.), B., 328.
- Platt, H. See Dreyfus, C.
- Platt, M. E. See Hibbert, H.
- Platt, W., staling of bread, B., 584.
- Platt, W. H. H., flux for tinning, etc., (P.), B., 333.
- Platt Bros. & Co., Ltd. See Brit. Cotton Industry Res. Assoc.
- Plattner, F., and Galehr, O., fate of acetylcholine in the blood. VI., A., 104.
- Platz, K. See Fischer, Hans.
- Platzmann, C. R., allotropic modifications of sulphur. I. Cryoscopy of sulphur, A., 143.
allotropic modifications of sulphur. III. Behaviour of iodine towards sulphur and selenium, A., 558.
allotropic modifications of sulphur. II. Catalytic effects, A., 714.

- Plauson, H., refining of old rubber of all kinds and its application, (P.), B., 294.
 process and apparatus [colloid mill] for preparation of semi-colloids and uniform colloids, (P.), B., 306.
 production of X-rays; cathode-ray tube, (P.), B., 516.
 production of paints and lacquers, (P.), B., 520.
- Pleass, (Miss) W. B., physical conditions affecting the setting of gelatin and the bearing of the results on the theory of gel formation, A., 415.
 absorption of water by gelatin. V. Influence of calcium hydroxide, A., 1518.
- Pletenev, S. A. See Isgarischev, N.
- Plettig, V., diffusion potential, A., 1124.
- Plevin, W. E., dirt in coal: its influence on carbonisation, B., 42.
- Plewes, F. B. See Ferguson, J. K. W., and Irving, L.
- Plinatus, W. See Comp. Franc. d'Exploit. des Proc. Plinatus.
- Plötz, E. See Fischer, Hans.
- Plonait, C., and Eisenack, A., laboratory apparatus of amber, A., 1549.
- Ploos van Amstel, J. J. See Arkel, A. E. van.
- Plotnikov, J., disadvantages of the quartz lamp in fluorescence analysis, A., 1153.
- Plotnikov, J., and Splait, L., volume light effect (longitudinal scattering) for light rays passing through different media, A., 604.
- Plotnikov, V. A., and Ivanov, K. N., decomposition of methyl alcohol in presence of the zinc-chrome catalyst, B., 1102.
- Plotnikov, V. A., and Jakubson, (Miss) S. I., electrochemical investigation of the system $\text{AlBr}_3\text{-KBr}$ in toluene and xylene, A., 704.
 electrochemical examination of the system aluminium bromide-potassium bromide in toluene and xylene solutions, A., 1123.
- Plotnikov, V. A., and Kikez, V. A., electrochemical investigation of the system $\text{AlBr}_3\text{-KBr}$ in ethylene bromide, A., 704.
- Plotnikov, V. A., and Kudra, O. K., electrochemistry of solutions of antimony trichloride in bromine, A., 164, 998.
- Plücker, W., and Keilholz, W., simple apparatus for electrometric titrations, A., 1151.
- Plumley, E. W. See Wellman Smith Owen Eng. Corp., Ltd.
- Plummer, W. B., heat of combustion of carbon, A., 997.
 moisture content of carbon blacks, B., 355.
- Plyler, E. K., and Burdine, T., infra-red absorption of some organic liquids, A., 662.
- Pneumatic Conveyance & Extraction, Ltd., and Smith, W. A., air washing, etc., (P.), B., 445.
 gas-washing apparatus, (P.), B., 888.
- Pobofil, F. See Kříž, A.
- Pocher, W. See Vogel, R.
- Pochobradsky, B., centrifugal separating apparatus [for cleaning gas], (P.), B., 170.
- Podbreznik, F., rôle of humic acids in the transformation through heating of coal and in the production of coke, B., 541.
- Podbreznik, F., and Soum, P. M., phenolic solubility of humic acids in coals, B., 541.
- Podolski, G., polarisation of two hydrogen atoms in the ground state, A., 1327.
- Podolsky, B., and Rojansky, V., Smekal-Raman effect in hydrogen-like atoms, A., 134.
- Poe, C. F., growth of anaërobes in crystal-violet bile media, A., 645.
- Poe, C. F., and Klemme, D., reducing equivalents of rare sugars determined by colorimetric methods, A., 1022.
- Poe, C. F., and Witt, N. F., growth of anaërobes in bile media containing malachite-green and brilliant-green, A., 1621.
- Pöschmüller, E. See Dolch, M.
- Pöcker, See Möller.
- Peel, C. S. van der, metallurgical operations at Bwana M'Kubwa, B., 423.
- Pössner, J., drying system, (P.), B., 125.
- Poethke, W., and Manicke, P., determination of sodium hydroxide in presence of sodium carbonate, A., 311.
- Poethke, W. See also Bauer, K. H.
- Poetzsch, W. G., producing electrolytic deposits of chromium which adhere well and penetrate well into any recesses, (P.), B., 199.
 electrolytic deposition of chromium, (P.), B., 334.
- Pogány, L. See Willstätter, R.
- Pogglioli, J. A. See Jakova-Merturi, G.
- Pogodin, S. A., determination of alumina in aluminium and its alloys, B., 717.
- Pogodin, S. A., effect of iron on the properties of aluminium, B., 911.
- Pogodin, S. A. See also Urazov, G. G.
- Pohl, H., Scholz, Hans, and Juretzek, H., prolonged loading tests on constructional steels at high temperatures, B., 1155.
- Pohl, R. W. See Hilsch, R., and Koch, W.
- Pohl, W. See Schaefer, W.
- Pohle, E. A., Severinghaus, E. L., and Davy, L., systematic effect of X-rays. I. Blood changes in dogs following exposure to filtered X-rays of short wave-length, A., 1608.
- Pohle, K., occurrence of adenylic acid in brain, A., 237.
- Pohlmann, J., and Rassers, J. R. F., preparation of milk, skimmed milk, or buttermilk free of milk sugar, (P.), B., 36*.
- Poiré, J. V., mineralogical composition of certain samples of Solikamsk salts, A., 1015.
- Poirot, A., anode rays of sodium, potassium, calcium, and barium, A., 657.
- Pokhvalinskaja, E. P. See Britzke, E. V.
- Pokorný, E., evaporator with two separate heating systems, (P.), B., 169.
- Pokrowski, G. I., probability law for the disintegration of radio-active substances at very small concentrations, A., 9, 1496.
 emission of α -particles from radioactive nuclei exposed to short-wave radiation, A., 393.
 expulsion of α -particles by radioactive nuclei. II., A., 516.
 relation between intensity and scattering angle for molecular light scattering, A., 522.
 possible effect of radiation of short wave-length on atomic nuclei, A., 1086.
- Pokrowski, G. I., and Gordon, E. A., relationship between intensity, polarisation, and angle of scattering for Raman radiation, A., 397.
- Pokrowski, G. I. See also Voronkov, G. P.
- Pokrowski, G. N., effect of milk feeding on secretion of gastric juice, A., 1466.
- Polack, W. G. See Imperial Chem. Industries, Ltd.
- Polak, F., fermentation of sucrose in the presence of sulphite, A., 250.
- Póányi, M., and Bogdandy, S. von, manufacture of halogen derivatives of organic compounds, (P.), B., 182, 274.
 synthesis of chemical substances, (P.), B., 353.
 apparatus for production of chemical compounds, (P.), B., 887.
- Póányi, M. See Eyring, H., and Frommer, L.
- Polara, V., effect of heating on the triboelectricity of liquid potassium and zinc amalgams, A., 146.
- Polayes, S. H., Hershey, E., and Lederer, M., post-mortem blood chemistry in renal disease, A., 1311.
- Pole, G. R. See Schurecht, H. G.
- Polessitski, A. See Chlopin, V.
- Polgren, G. R. See Gen. Electrol. Co.
- Polieard, A., and Devuns, J., nature of mineral particles enclosed in the lungs of miners, A., 808.
- Policard, A. See also Leulier, A.
- Polikier, H. See I. G. Farbenind. A.-G.
- Polini, G. See Pia, C.
- Polissar, M. J., regulator allowing rapid changes in the temperature setting of the thermostat, A., 447.
 kinetics, statics, and energetics of the thermal reaction $\text{CH}_3\text{I} + \text{CH}_2\text{I} = \text{CH}_2\text{CH}_2 + \text{I}_2$ in carbon tetrachloride solutions, A., 548.
- Poljakov, A. See Gussul, R.
- Pollacci, G., and Bergamaschi, M., demonstration of formation of formaldehyde in living plants during chlorophyllic photosynthesis, by means of dimethyldihydroresorcinol, A., 384.
- Pollain, L. F., production of sulphur trioxide by combustion of sulphur, (P.), B., 325.
- Pollak, A. S., improvements of cereals, cereal flours, and food products therefrom, (P.), B., 530.
- Pollak, F. See Ripper, K.
- Pollak, J., Heimberg-Krauss, M., Katscher, E., and Lustig, O., action of chlorosulphonic acid on cyclic hydrocarbons, A., 1029.
- Pollak, Leo. See Molitor, H.
- Pollak, Leopold, qualitative analysis of tannins, B., 831.
- Pollard, A., and Robinson, R., orienting influence of free and bound ionic charges on attached simple or conjugated unsaturated systems. V. Nitration of benzyldiethylsulphonium picrate, A., 1302.

- Pollard, A. G., and Whincop, J. R., manufacture of cellulose from vegetable fibre, (P.), B., 11.
- Pollecoff, F. See Stollé, R.
- Pollet, H. See Reintzer, B.
- Pollitzer, F. See Ges. f. Linde's Eismaschinen A.-G.
- Pollock, R. C. See Raine, W. A.
- Polonovski, Maz., and Polonovski, Michel, conversion of a tertiary amine oxide into a dialkylhydroxylamine: *N*-hydroxynornarceine, A., 483.
- amine oxides of alkaloids. VI. *N*-Oxides of hydrastine and narcotine. VII. Conversion of the *N*-oxide of narcotine into a dialkylated hydroxylamine, *N*-hydroxynarceine, A., 935.
- Polonovski, Michel, alkaloid amine oxides and their transformations, A., 623.
- Polonovski, Michel. See also Hazard, R., and Polonovski, Maz.
- Polster, J. P., and Illinois Stoker Co., (A, C) rotary pivoted hammers [for pulverisers]; (n) mill pulveriser, (P.), B., 885.
- Polverini, A. See Angeli, A.
- Polyanski, V. V., preparation of pure chromic anhydride, B., 903.
- Polysius, G., conveying materials in bulk by means of compressed air, (P.), B., 306.
- Polysius, G. See also Bruhn, B., and Hasselbach, A.
- Polysius Akt.-Ges., G., reduction of gypsum, (P.), B., 556.
- Pomiankowski, F. See Vercurysse, J.
- Pomp, A., ageing of steel castings, B., 614.
- Pomp, A., and Lindenber, A., tensile properties and structure of drawn-steel wires in relation to the previous heat treatment, B., 1155.
- Pond, J. A., manufacture of soluble phosphatic fertilisers from tricalcium phosphates, (P.), B., 435.
- Pond, W. F., gravimetric determination of chromium in steel, B., 147.
- Pondal, I. P., geochemistry of Galician rocks, A., 1016.
- Pondal, I. P., and Vázquez-Garriga, J., tungsten ores of Galicia. I. Wolframites from La Brea, Corpiño, and Carboeiro, A., 189*.
- tungsten ores of Galicia. II. Analyses of scheelite from Carbia and Villar de Cervos, A., 732.
- Ponder, E., effect of variations in cell content of hæmolytic systems, A., 1306.
- Ponder, E., Saslow, G., and Yeager, J. F., kinetics of hæmolytic systems. IV. Series of Ryvosh, A., 944.
- Ponder, E., and Yeager, J. F., action of simple hæmolysins, A., 1306.
- Pongratz, A., perylene and its derivatives. XXXI., A., 1581.
- Ponndorf, W., semi-specific determination of small quantities of saturated alcohols, A., 1159.
- Ponomarev, I. F., Russian porcelain manufacture, B., 1029.
- Ponte, M., diffraction of electrons; electronic analysis, A., 834.
- Pontoppidan, C., fine-grinding of dry material, (P.), B., 444.
- Pontoppidan, C., and Smidth & Co., F. L., grinding of cement materials, etc., (P.), B., 715*.
- Ponzio, G., dioximes. LVI., LIX., LXI., and LXV., A., 226, 581, 1409.
- Ponzio, G., and Baldracco, F., dioximes. LXIV., A., 1409.
- Ponzio, G., and Carta-Satta, G., dioximes. LXII., A., 621.
- Ponzio, G., and Dnrio, F., dioximes. LXVI., A., 1409.
- Ponzio, G., and Torres, M., dioximes. LVII., A., 345.
- Poock, A. See Tacke, B.
- Poole, C. A. See Black, J. G.
- Poole, H. G. See Piper, C. S.
- Poole, H. H. See Atkins, W. R. G.
- Poole, H. J., and Powell, W. J., apparatus for the continuous generation of very dilute mixtures of nitrogen peroxide and air of controlled humidity and temperature, B., 611.
- Poole, J., and Whitehead & Poole, Ltd., dye jiggers, (P.), B., 54.
- Poole, J. W., solubilities of [lubricating] oils and waxes in organic solvents, B., 46.
- Poore, P., production of acetic acid, wood naphtha, and other products of the distillation of wood and similar carbonaceous substances, (P.), B., 598.
- Pope, E. A. See Malcolm, J.
- Pope, R. W. See Imperial Chem. Industries, Ltd.
- Popesco, C. See Ionesco-Matiu, A.
- Popesco, M. See Simici, D.
- Popescu, A. See Casimir, E. E.
- Popescu, D. M. See Angelescu, E.
- Popescu, H. See Popoviciu, G.
- Popov, A. P., and Karnitzki, V. A., analysis of mineral springs in the Upper Chechnya (Caucasus), A., 187.
- Popov, M. M., Bundel, A., and Choller, W., heat of formation of mixed crystals of the series KCl-KBr, A., 703, 1122.
- Popov, N. A., and Kudrjavzev, A. A., duration of life of particular parts of frog's heart in liquids of various ionic compositions, A., 368.
- Popov, S., electrode potentials in analytical chemistry, A., 1142.
- Popov, S., and Neuman, E. W., microscopical examination of precipitates as an aid to precise analysis. I. Determination of sulphates as barium sulphate, A., 561.
- solubility of inorganic precipitates in various aqueous solvents and the relation to modern theories of solution. I. Silver chloride, A., 1107.
- Popov, S., Riddick, J. A., and Becker, W. W., oxidation-reduction potentials. II. Manganese dioxide, A., 1123.
- Popovici, L., 2-naphthoylformic acid and its derivatives, A., 1182.
- Popovici, L. See also Bougault, J.
- Popoviciu, G., and Popescu, H., tetany. III. Blood serum-calcium and -phosphorus in hyperventilation tetany with adrenaline or ergotamine, A., 1469.
- Popper, H. L., presence of pancreatic enzymes in the bile, A., 365.
- Porcher, C., and Muffet, E., fate of caseinogen in milk retention, A., 363.
- Porger, J. See Gunther, P.
- Porges, N., nitrate changes in a fertile soil as influenced by sodium nitrate and ammonium sulphate, B., 162.
- Porritt, B. D. See Webster, D. M.
- Port, I. See Meyer, E. H. L.
- Porteous, F., [coal]-gas dehydration for small works, B., 495.
- Porter, A. W., viscosity of emulsions, A., 692.
- surface tension. V. Jaeger's maximum pressure method, A., 852.
- calculation of surface tension from measurements of capillary rise, A., 1014.
- catalysis, A., 1530.
- Porter, B. A., and Szazama, R. F., influence of Bordeaux mixture on the efficiency of lubricating-oil emulsions in the control of the San Jose scale, B., 680.
- Porter, C. R. See Haworth, W. N.
- Porter, C. W. See Barnes, C. D., and Latimer, W. M.
- Porter, H. C. See Jones, M. C. K.
- Portevin, A., corrosion of metals and alloys, B., 244.
- Portevin, A., and Chevenard, P., complex phenomena observed during the recovery of hypotempered steels, A., 1510.
- change in composition of the cementite constituent during the recovery of special steels, B., 950.
- dilatometric study of the transformations and heat treatment of light aluminium alloys, B., 1113.
- Portevin, A. See also Chevenard, P.
- Portillo, R., tetramminocupric nitrate, A., 47.
- Portnov, A., and Skvorzov, V., determination of minute quantities of bismuth, A., 184.
- Portnov, M. A. See Tolkatschov, S. A.
- Poschenrieder, H. See Niklas, H.
- Poschiltzova, E. A. See Sadikov, V. S.
- Pose, H., detection of atomic disintegration in aluminium by measuring the ionisation of a single *H*-ray, A., 7.
- measurements of atomic disintegration with aluminium, beryllium, iron, and carbon by the recoil method, A., 517.
- new discrete range groups of *H*-particles from aluminium, A., 1086.
- discrete range groups of *H*-particles expelled from aluminium. I. Dependence of the number and energy of the *H*-particles on the primary energy, A., 1232.
- Posnjak, E., crystal structures of magnesium, zinc, and cadmium ferrites, A., 279.
- Pospelov, V. I. See Saldau, P. Y.
- Pospiech, F., and Chemische Fabrik Pott & Co., acceleration and improvement of tanning processes, (P.), B., 1165.
- Pospisil, V., radiation and Brownian movement. V., A., 412.
- new effect of light on matter, A., 412.
- Possner, H., conductivity of aqueous solutions of electrolytes in the presence of sucrose, A., 1524.
- Posternak, S., and Posternak, T., preparation of *allomucic* acid, A., 66.
- configuration of inactive inositol, A., 210.
- Posternak, S. See also Soc. of Chem. Ind. in Basle.
- Posternak, T. See Posternak, S., and Soc. of Chem. Ind. in Basle.

- Posthumus, K., explosion regions of gas mixtures in which one or two of the gases are endothermic, A., 708.
 connexion between the melting curve and the composition of a binary mixture, A., 1521.
- Postovski, G. J. See Kögler, F.
- Postovski, I. J., structure of betulin, A., 920.
- Postovski, I. T., and Lugovkin, B. P., action of aluminium chloride and metallic aluminium on hydroxy-compounds, A., 467.
- Postrikov, N. N. See Britzke, E. V.
- Poth, E. J., carbon dioxide generator for combustion analysis in the determination of nitrogen, A., 1151.
- Poth, E. J., Schulze, W. A., King, W. A., Thompson, W. C., Slagle, W. M., Floyd, W. W., and Bailey, J. R., bases in the kerosene distillate of California petroleum, A., 788.
- Potozky, A., Salkind, S., and Zoglina, J., mitogenic radiation from the blood and tissues of invertebrates, A., 358.
- Pott, A., and Broche, H., production of substances such as benzene, fuel oil, lubricating oil, etc., from solid fuels, (P.), B., 314.
- Pott, R. H., and Chemische Fabrik Pott & Co., treatment of crude fibres and textile fabrics, (P.), B., 414*.
- Potter, F. M., and Sach, J. S., determination of viscosity on small samples of tar, B., 750.
- Potter, J. E. See Brit. Thomson-Houston Co., Ltd.
- Potter, M. C., electrical effects accompanying the decomposition of organic compounds; relation to photo-synthesis and plant nutrition, A., 381.
 hydrogen-ion concentration of rain and potable water, A., 1306.
- Potter, M. T., and Kramer, M. M., effect of addition of iron to an adequate diet, A., 1061.
- Potts, C. See Wigley, C. G.
- Potts, S. F., factors concerned in arsenical injury to foliage, B., 736.
- Potts, T. T., microscopical examination of pulps for rosin, B., 758.
- Poulenc, P., alkali metal bromides of rhodium, A., 559.
 complex rhodium bromopyridinates, A., 1391.
- Poulson, E., occurrence of the antirachitic vitamin in fish-liver oils, A., 1070.
- Poulter, T. C. See Nicolet, B. H., and Woods, G. M.
- Pounder, D. W. See Dunlop Rubber Co., Ltd.
- Pourbaix, Y., changes in composition of blood after injection of radioactive substances into animals; ionium nitrate, A., 1472.
- Pourbaix, Y. See also Maisin, J.
- Povorinskaya, S. A., variations of catalase curve of blood after introduction of pilocarpine on an acid or alkaline diet, A., 1214.
- Powell, A. R., Deering, E. C., and Johnson, Matthey & Co., Ltd., treatment of platinum ores, concentrates, etc., containing chromite, (P.), B., 670.
- Powell, C. F. See Tyndall, A. M.
- Powell, C. K. See Sharp, P. F.
- Powell, E. C. See Basterfield, S.
- Powell, W. J. See Poole, H. J.
- Power-Gas Corporation, Ltd., and Rambush, N. E., manufacture of water-gas, (P.), B., 405.
- Powers, D. H. See Du Pont de Nemours & Co., E. I.
- Powers, L. D. See Blicke, F. F.
- Powhatan Mining Corporation. See Mett, F. A.
- Pozniakov, N., photographic paper having a transferable gelatin-silver film and processes in connexion therewith, (P.), B., 394.
- Praagh, G. van. See Black, H. K.
- Praetorius, M. See Wolf, Kuno.
- Prakash, S., and Dhar, N. R., preparation of borate, tungstate, molybdate, and other jellies and study of mercurisulphosalicylic acid jellies, A., 1114.
 influence of concentration of coagulating electrolyte, time, and temperature on the synchysis of some inorganic jellies, A., 1117.
 preparation and study of some hydroxide jellies, A., 1369.
 reversal of charge of serum and its coagulation and gelatinisation with acids, A., 1518.
- Prakash, S. See also Dhar, N. R.
- Prange, G. See Kappeller, G.
- Fransche, A. See Fischer, Franz, and Peters, K.
- Prasad, M., X-ray investigation of the crystals of azobenzene, A., 1241.
- Prasad, M., and Godbole, R. D., velocity of reaction in mixed solvents. II. Velocity of reaction between sodium thiosulphate and alkyl iodides in organic solvents-water mixtures, A., 710.
- Prasad, M., and Hattiangadi, R. R., silicic acid gels. II. Hydrogen-ion concentration and cataphoresis of the gel-forming mixtures. III. Effect of non-electrolytes on the time of setting of the gel-forming mixtures, A., 414.
 silicic acid gels. IV. Effect of electrolytes on time of setting of gel-forming mixtures, A., 1117.
- Prasad, M., Mankodi, C. L., and Godbole, R. D., velocity of reaction in mixed solvents. I. Velocity of reaction between potassium persulphate and potassium iodide in organic solvents-water mixtures, A., 548.
- Prassolov, L. I., brown soils of Crimea and Caucasus, A., 316.
- Pratesi, P. See Betti, M., and Seagliarini, G.
- Pratolongo, U. [with Allan, M. P.], chemico-bromotological studies on vinegars, B., 1001.
- Pratt, C. J., distillation and cracking of [hydrocarbon] oil, (P.), B., 180, 408*.
- Pratt, C. J., and Universal Oil Products Co., hydrocarbon oil conversion, (P.), B., 701.
- Pratt, D. D. See Morgan, G. T.
- Pratt, M. C. See Barton-Wright, E. C.
- Pratt, O. B., and Swartout, H. O., fruit and vegetable pigments as indicators, A., 1142.
- Pratt, W. B., and Dispersions Process, Inc., dispersing rubber in water, (P.), B., 27.
 aqueous rubber dispersion, (P.), B., 27*.
 production of aqueous rubber emulsion; dispersion of coagulated bodies; production of aqueous rubber dispersions, (P.), B., 1080.
- Prausnitz, P. H., new types of glass filtering apparatus, A., 314.
 development and application of laboratory apparatus for the extraction of solid and liquid materials, A., 567.
 electric behaviour of petroleum, A., 859.
- Prausnitz, P. H. See also Halberstadt, S.
- Právditsch-Neminski, V. V., micro-determination of chloride in blood, A., 236.
- Právditsch-Neminski, V. V., and Babitsch, Z. E., micro-determination of the chlorides of blood, A., 1054.
- Preece, I. A., hemicelluloses. II. Hemicelluloses of maize cobs, A., 1325.
- Preece, I. A. See also Norris, F. W.
- Preininger, V. See Šandera, K.
- Preioni, P. J. See Coll, P. R.
- Preisach, F., Barkhausen effect, A., 141.
- Preisler, P. W., oxidation-reduction potentials and the possible respiratory significance of the pigment of the nudibranch *Chromodoris zebra*, A., 358.
 kinetics of reduction of cystine and related dithio-acids by reversible oxidation-reduction systems, A., 1128.
- Preiss, W. See Tüfel, K.
- Preisseecker, E., nature and origin of ovarian lipins, A., 1464.
- Prelog, V., sapogenin of the sugar-beet, A., 1044.
- Prelog, V. See also Lukeš, R.
- Premix Gas Plants, Ltd., and Docking, A., [varnishing] ovens for heat treatment of sheet material, (P.), B., 200.
 apparatus for combustion of gaseous mixtures, (P.), B., 359.
 removing or recovering sulphur from fluids [gases], (P.), B., 853.
 industrial gas-heating systems, (P.), B., 979.
- Prendergast, C. S. See Prendergast, R. S.
- Prendergast, R. S., Prendergast, C. S., Sonsthagen, A., and Pearson, F., lubricants, (P.), B., 539.
- Prentice, J. H. See Baird, J. C.
- Prentiss, H. W. See Armstrong Cork Co.
- Preobraschenski, A. M., action of substances of the pilocarpine group (pilocarpine, arecoline, physostigmine) on the gas content of the blood, A., 1063.
- Preobraschenski, N. A. See Tschitschibabin, A. E.
- Prescott, W. E. See Baker, G. R.
- Pressell, G. W., and Houghton & Co., E. F., carburising material [for iron or steel], (P.), B., 426.
- Pressentin, H., secondary standards between 3600 and 3000 Å. in the iron spectrum, A., 389.
- Pressler, A. E. M. See Pressler, E. G. O.
- Pressler, E. G. O., Pressler, A. E. M., and Pressler, K. E. H. (Pressler Thüringer Vakuumröhrenfabrik & Fabrik Wissenschaftlicher Apparate, O.), photo-electric cells, (P.), B., 336, 996.
- Pressler, K. E. H. See Pressler, E. G. O.
- Pressler Thüringer Vakuumröhrenfabrik & Fabrik Wissenschaftlicher Apparate, O. See Pressler, E. G. O.
- Pressprich, G. See Foerster, F.

- Presswood, C., thermal insulation of brick, tile, and pipe kilns, B., 59.
- Prest-O-Lite Storage Battery Corporation. See Benner, R. C.
- Preston, F. W., manufacture of clay articles, (P.), B., 190.
[strength of glass containing cracks], B., 767.
chemical and physico-chemical reactions in the grinding and polishing of glass, B., 988.
use of polariscopes in the glass industry, B., 1152.
- Preston, F. W. See also Littleton, J. T., jun.
- Preston, G. H. See Hickinbottom, W. J.
- Preston, J. M., mounting media for microscopic work, A., 567.
[detection of] strained viscose threads, B., 1146.
- Preston, J. M. See also Blakeley, J. D.
- Preston, J. S., reflexion factor of magnesium oxide, A., 728.
- Preston Street Combing Co., Ltd., and Adams, J. W., centrifugal liquid purifiers, (P.), B., 269.
- Prétot, M., and Ullmann, F., device for removing solid particles from flue gases, (P.), B., 400*.
- Pretschner, F. See Schmidt, H. H.
- Prettre, M., Dumanois, P., and Lafitte, P., oxidation and ignition of mixtures of pentane and air, A., 1255.
ignition and combustion of mixtures of pentane and air, A., 1256.
- Prettre, M., and Lafitte, P., ignition and combustion of carbon disulphide, A., 708.
- Prettre, M. See also Lafitte, P.
- Preusse, K. H. See Ditmar, R.
- Prevot, F., mode of action of boric acid on the phosphorescence of zinc sulphides prepared by the explosion method, A., 978.
- Prevot, F. See also Coustal, R.
- Prévost, C., and Daujat, J., partial abnormal reaction of β -substituted allyl bromides with magnesium organobromides, A., 1158.
- Prishishnikov, D. N., ammonia in fertilisers and its relation to the life of plants, B., 74.
- Prickett, P. S., and Breed, R. S., bacteria that survive and grow during pasteurisation of milk and their relation to bacterial counts, B., 33.
- Prickett, P. S. See also Bills, C. E.
- Prideaux, E. B. R., and Howitt, F. O., electrophoresis of protein sols in the presence of gold sols; albumin, gelatin, and casein, A., 159.
- Prideaux, E. B. R., and Millott, J. O'N., action of hydrogen fluoride on compounds of selenium and tellurium. III. Solubilities of tellurium dioxide and oxyfluoride, A., 163.
- Prideaux, E. B. R., and Winfield, F. T., dissociation constants of quinine, cinchonine, and cinchonidine, A., 1120.
- Prideaux, E. B. R. See also Howitt, F. O.
- Prieger, I., coating of the fat-globules of milk, A., 492.
- Priest, C. F., kilns or furnaces for calcining, burning, or roasting limestone, iron ore, chalk, etc., (P.), B., 904.
- Priest, G. W., [analysis of] sulphonated oils, B., 467.
- Priester, R. See Waterman, H. I.
- Priestley, J. T., determination of strychnine in biological material, A., 497.
- Priestman, J. See Hilditch, T. P.
- Primos Lead Co. See Smith, W. C.
- Primrose, J., and Foster Wheeler Corporation, heating of [petroleum] oil, (P.), B., 312.
- Prince, A. L., and Blair, A. W., soil and crop studies with ammonium sulphate, B., 524.
- Prince, R. K., and Vitamin Food Co., Inc., vitamin compound, (P.), B., 1004.
- Prince-Smith, W., and Waterhouse, D., [sliver-]drying apparatus, (P.), B., 814.
- Princivalle, E., pyrazines. VI., A., 929.
- Princivalle, E. See also Gastaldi, C.
- Prindle, K. E. See Church, W. H.
- Pring, M. E., and Spencer, J. F., electrometric determination of copper. III. Application of bi-metallic electrodes, A., 1011.
- Pringsheim, H., constitution of starch and cellulose, A., 456.
determination of lignin, A., 506.
- Pringsheim, H., and Borchardt, H., structural matter of varieties of cabbage. III., A., 584.
- Pringsheim, H., and Hensel, W. G., inulin. IX., A., 896.
- Pringsheim, H., Otto, G., and Katz, J. R., new degradation of cellulose. II., A., 1168.
- Pringsheim, H., and Reilly, J. [with Hensel, W. G., Burmeister, W., Donovan, P. P., and Hayes, (Miss) N.], inulin. X., A., 1562.
- Pringsheim, H., and Thilo, E., enzymes of barley malt. VI. Enzymic hydrolysis of viscose silk, A., 814.
- Pringsheim, H., Wiener, A., and Weidinger, A., starch. XXIV. New polymayloses, A., 1561.
- Pringsheim, H. See also Reilly, J.
- Pringsheim, P., fluorescence and temperature radiation, A., 134.
- Pringsheim, P., and Schlivitch, S., Raman effect of water, A., 521.
fluorescence of praseodymium and neodymium glasses, A., 665.
- Pringsheim, P. See also Müller, K.
- Prins, A., complex ions having extremely small instability constants, A., 995.
- Prins, J. A., reflexion of X-rays in absorbent ideal crystals, A., 1098.
- Prins, J. A. See also Coster, D.
- Prior, P. H., design, construction, and operation of a constant-humidity room, B., 123.
- Prior, W., and Crisp, C., selenium [light-sensitive] cells, (P.), B., 955.
- Pritchard, J., testing of "resistance-glass" ampoules, B., 663.
- Pritchard, P. See Birmingham Aluminium Casting (1903) Co., Ltd., and Lever Bros., Ltd.
- Pritcheht, L. C., plastic study of nitroglycerin-nitrocotton gels, B., 395.
- Pritcheht, R. H., and Winthrop Chemical Co., Inc., manufacture of phenyl-oxalyl acetic acid alkyl esters [alkyl phenyloxalacetates], (P.), B., 394.
- Pritsker, I. See Rubens, B.
- Pritzker, J., determination of butter fat in cooking fats, B., 517.
- Probert, M. E. See Brit. Cotton Industry Res. Assoc., and Fargher, R. G.
- Proca, A., Dirac's equation, A., 1087.
- Process Engineers, Inc. See De Cew, J. A.
- Prochowiniek, V. See Schlubach, H. H.
- Pročke, O., volumetric determination of mercury, A., 1546.
- Procopiu, S., electrokinetic potential of metals and the *E.M.F.* of movement, A., 546.
- Procter, J., drying of green clay goods prior to baking, (P.), B., 327.
- Proctor, C. H., electrodeposition of tin, B., 63.
- Proctor, D. McI., and Carborundum Co., Ltd., [abrasive-covered] rollers for drawing, spinning, or otherwise treating fibrous materials, (P.), B., 708.
- Proctor, R. F., and Douglas, R. W., measurement of the viscosity of glass at high temperatures by the rotating-cylinder viscometer, B., 59*.
- Proctor & Schwartz, Inc. See Hurxthal, A. O.
- Products Corporation. See Kritchewsky, W.
- Proebsting, E. L. See Conrad, J. P.
- Proffe, S. See Josephson, K.
- Proks, J., individuality of the mammary glands of the cow, A., 238.
- Promas, I. P. See Shukov, I. I.
- Pros, E., micro-determination of sugar in urine, A., 1610.
- Prosch, W., continuous working in the soap industry, B., 619.
- Proscio Oils Corporation, extraction of [oleaginous] materials, (P.), B., 519.
- Proskouriakoff, A., and Titherington, R. J., mercury derivatives of acetamidocresols, A., 1602.
- Prosz, J., activity of ions in concentrated solutions, A., 1251.
- Prot. See Aubert.
- Protopopescu, (Mme.) L. See Mihailescu, M. A.
- Provine, R. W. See Story, LeR. G.
- Prudhomme, E. A., and Société Internationale des Procédés Prudhomme, purification [desulphurisation] of [combustible] gases, (P.), B., 704*.
- Prunet, J. See Schulz, F.
- Prutzman, H. C. See Kritchewsky, V.
- Prutzman, P. W., decolorising fatty substances with adsorbents, (P.), B., 1037.
- Prutzman, P. W., Benjamin, V. C., and Contact Filtration Co., tipping filter press, (P.), B., 887.
- Prutzman, P. W. See also Benjamin, V. C., Vogel, W. L., and Wheeler, R. C.
- Prytherch, W. E., gases in copper and their removal, B., 422.
- Prytz, M., normal potential of beryllium, A., 1525.
- Przeborowski, J. S., Georgievski, V. I., and Filippova, N. D., activity of sulphuric acid in mixed solvents. I., A., 160.
- Przeborowski, A., structure of the absorption bands of tellurium, A., 1227.
- Przylecki, S. J., uricaso and its action, A., 374.

- Przylecki, *S. J.*, and Gurfinkel, *M.*, structure and enzyme reactions. VIII. Physical state of the sorbent, A., 371.
- Pubellier, *M.*, rational use of duralumin, B., 424.
- Publow, *H. E.*, and Sinclair, *S. E.*, rate of grain growth in low-carbon steels, B., 1113.
- Pucher, *G. W.*, Leavenworth, *C. S.*, and Vickery, *H. B.*, determination of total nitrogen of plant extracts in presence of nitrates, B., 581.
- Pucher, *G. W.*, and Sly, *G. E.*, blood-cholesterol, after fasting and after ingestion of cholesterol, A., 246.
- Pucherna, *J.* See Müller, *Emil*.
- Pucknat, *V.* See Loevenich, *J.*
- Puening, *F.*, distillation of coal or other carbonaceous material, (P.), B., 936.
- Puesko, *O.*, administration of lævulose and lævulose-insulin combinations in severe diabetic acidosis, A., 948.
- Pützer, *A.*, effect of a magnetic field on the dielectric constants of gases, A., 18.
- Pufahl, *F.*, diphenyl; 5:5'-substituted diphenic acids, A., 88.
- Puffeles, *M.* See Garry, *G.*
- Pugh, *C. E. M.*, mode of action of tyrosinase, A., 1474.
- Pugh, *W.*, germanium. VI. Improved method of extracting germanium from germanite, A., 47.
- germanium. VIII. Sulphides of germanium, A., 1537.
- Pukall, *K.* See Meyer, *Julius*.
- Pukirev, *A. G.* See Rosdestvenski, *M. S.*
- Pult, *A. G.*, dry distillation of brown coal, (P.), B., 311.
- Pummerer, *R.*, constitution of caoutchouc, A., 1590.
- preparation of pure caoutchouc from rubber latex, (P.), B., 521.
- manufacture of arylated quinones and hydroxyarylquinones, (P.), B., 549.
- Pungs, *W.* See I. G. Farbenind. A.-G.
- Puntambekar, *S. V.* See Katti, *M. C. T.*
- Pupko, *S. L.*, viscosimetric studies of the coagulation of hæmogoblin, A., 630*.
- Puranen, *U. H.*, and Tomula, *E. S.*, rapid determination of raw fibre, B., 1104.
- Puranen, *U. H.* See also Kilpi, *S.*
- Purdy, *A. C.* See Kraemer, *W. L.*
- Purdy, *J. M.*, France, *W. C.*, and Evans, *W. L.*, ultramicroscopical study of linseed oil containing metallic driers, B., 621.
- Puri, *A. N.*, percolating cylinder and some of its uses [in soil investigations], B., 259.
- determination of total carbonate in soils, B., 1000.
- Puri, *A. N.* See also Dutt, *G. R.*
- Puri, *G. L.* See Seth, *J. B.*
- Purkayastha, *R. M.*, and Ghosh, *J. C.*, reactions between bromine and organic hydroxy-acids. I. Dark reaction. II. Photochemical reaction, A., 717.
- Purkayastha, *R. M.* See also Ghosh, *J. C.*
- Purkis, *F. T.* See Dunlop Rubber Co., Ltd.
- Purr, *A.* See Waldsemidt-Leitz, *E.*
- Purves, *C. B.*, rotatory power and structure in the sugar group. XXI. β -Phenylthioglucofides of dextrose, xylose, lactose, and cellobiose. XXII. Evidence concerning the ringed structure of β -phenylthio-cellobioside and -lactoside. XXIII. Preparation and structure of β -phenylthiomaltoside and its hepta-acetate, A., 197.
- Purves, *G. T.*, metallurgical coke, B., 646.
- Puterbaugh, *M. P.* See Hurd, *C. D.*
- Putnam, *M. E.*, and Dow Chemical Co., manufacture of sodium salicylate, (P.), B., 1027.
- Putnok, *L. von*, and Szelenyi, *G. von*, absorption by various silica gels from gaseous mixtures of air, alcohol, and ether, II., A., 286.
- Putochin, *N.*, synthesis of ethylenediamine, A., 1563.
- Putschkovski, *B. S.* See Dumanski, *A. V.*
- Putzillo, *V. G.* See Nametkin, *S. S.*
- Puxeddu, *E.*, initial inertia in chemical reactions, A., 168.
- Puxeddu, *E.*, and Sanna, *G.*, mineral waters of Sardinia. I., A., 187.
- ketophenmorpholine synthesis from 5-aminoeugenol. II., A., 225.
- derivatives of 6-amino-3-hydroxybenzoic acid. II., A., 599.
- Pyhälä, *E.*, determination of the abrasive constituents in consistent fats, B., 1118.
- Pyman, *F. L.*, 2-thiol-4(5)- β -aminoethylglyoxaline (2-thiolhistamine), A., 352.
- anserine, A., 352.
- Pyman, *F. L.* See also Boot's Pure Drug Co., Ltd., Coulthard, *C. H.*, Forsyth, *R.*, and Hill, *D. W.*
- Pyne, *H. R.* See Morgan, *J. L. R.*
- Pyrene-Minimax Corporation. See Schmidt, *Karl*.
- Pyriki, *C.* See Heiduschka, *A.*

Q.

- Quadrat, *O.*, analysis of basic slags and representation of their composition in a triangular diagram, B., 1032.
- Quadrat, *O.*, and Jikšić, *J.*, pallas alloy as a substitute for platinum, B., 62.
- Quadrat, *O.*, and Korecký, *J.*, complex compounds of organic acids with aluminium hydroxide, A., 743.
- Quaker Oats Co. See Fawkes, *C. E.*, Nash, *C. A.*, and Trickey, *J. P.*
- Quam, *G. N.*, effect of addition of salts and bases on corrosion by hypochlorite, B., 1032.
- Quanquin, *B.* See Mondain-Monval, *P.*
- Quartaroli, *A.*, copper as an element necessary to plants, A., 385.
- Quast, *A.* See Ostwald, *Wolfgang*.
- Quastel, *J. H.* See Penrose, *M.*
- Quadrat-i-Khuda, *M.*, keto-lactol tautomerism. IV. Chemistry of 5-acetyl-1:1:2-trimethylcyclopentane-2-carboxylic acid; constitutions of the acid esters of camphoric acid, and a synthesis of homoepicamphor, A., 471.
- stereochemistry of some alicyclic ring-systems, A., 599.
- Quadrat-i-Khuda, *M.* See also Sen, *R. N.*
- Quehl, *K.* See Pfeiffer, *P.*
- Quendt, *B.*, pretreatment of hides for promoting tanning thereof and preparations therefor, (P.), B., 919.
- Queney, *P.*, spectrum of arsenic in the extreme ultra-violet, A., 125.
- Quensel, *L. S.*, and Stephens, *F. A.*, heat exchanger, (P.), B., 690.
- Quenstädt, *J.* See Le Blanc, *M.*
- Querbach, *J.*, near infra-red spectra of iron, lanthanum, calcium, barium, strontium, magnesium, and their compounds, A., 389.
- Querberitz, *F.* See Diels, *O.*
- Querfurth, *W.*, and Holzverkohlungs-Ind. A.-G., refining of wood-spirit oils, (P.), B., 1140.
- Quester, *E.*, processes and devices for [air]-drying of tobacco and similar materials, (P.), B., 793.
- Quick, *A. J.*, and Kahn, *M. C.*, fermentation of glycuronic acid by certain bacteria, A., 252.
- Quick, *G. W.* See Freeman, *J. R., jun.*
- Quiggin, *D. A.*, evaporators [for generating steam from brine], (P.), B., 1135.
- Quiggle, *D.* See Davis, *H. S.*
- Quillico, *A.*, and Fremi, *M.*, anomalous diazo-coupling with unsaturated phenols, A., 82.
- action of nitric acid on acetylene. I. and II., A., 449, 622.
- new method of formation of pyrrole-blacks. I. and II., A., 793.
- Quillard, relative tests on the rise of temperature of activated aluminium alloys, B., 1072.
- resistance to sea-water of aluminium sheet with various protective coatings, B., 1072.
- Quincke, *H.* See Eismayer, *G.*
- Quinn, *E. L.*, and Wernimont, *G.*, surface tension of liquid nitrous oxide, A., 1097.
- Quintin, (*Mlle.*) *M.*, influence of the medium on the photovoltaic effect of copper iodide, A., 166.
- Quirk, *A. J.* See Brown, *N. A.*
- Quittner, *F.* See Beran, *O.*

R.

- Rauhaage, *S. A.*, and Sizer, *A. W.*, machines for separation of granular material, (P.), B., 40.
- Raalte, *A. van*, sensitiveness of test animals to French beans, B., 301.
- f. p. of milk from cows having foot-and-mouth disease, B., 964.
- Raalte, *A. van*, and Druten, *A. van*, fluorescence of lard, B., 109.
- Raalte, *A. van*, and Lerner, *M. M.*, reductase time and bacteria count of milk, B., 164.

- Rabas, A. See Dubský, J. V.
- Rabaté, E., and Fleckinger, J., colour reaction of proteins of wheat grain, A., 826.
- Rabaté, J., constitution of ameliaroside: identity with piceoside (picein of Tanret), A., 825*.
- nitrogenous derivatives of piceoside, A., 967.
- hexacosanol, a new C_{26} alcohol of the fatty series extracted from the bark of *Amelanchier vulgaris*, Mönch, A., 1324.
- presence of rutin (rutoides) in the leafy stems of *Bupleurum falcatum*, A., 1484.
- salicinerin from *Salix cinerea*; its identity with piceoside, A., 1484.
- Rabaté, J. See also Bridel, M.
- Rabe, P. See Gen. Aniline Works, Inc.
- Rabek, T. J., refining of benzol; action of chlorine on crude benzol, B., 698.
- Rabek, T. J., and Bojanovski, J., purification of anthracene, B., 50.
- Rabetrano, E., purification of graphites, (P.), B., 751.
- Rabinovitsch, B., viscosity and elasticity of sols, A., 32.
- Rabinovitsch, B., and Thilo, E., distinction between ionic and atomic compounds, A., 277.
- Rabinovitsch, E. See also Beutler, H., and Franck, J.
- Rabinovitsch, I. M., carotinamia and diabetes, A., 241.
- carotenamia and diabetes. II. Relationship between sugar, cholesterol, and carotene content of blood-plasma, A., 807.
- Rabinovitsch, M., nature of electrolytic dissociation, A., 859.
- Rabinovitsch, M., and Fokin, A. S., electrochemical preparation of sodium hyposulphite, A., 1532.
- Rabinovitsch, M., and Maschowitz, A., electrochemical preparation of formates from carbonic acid, A., 1532.
- Rabinovitsch, M., and Zvyotinski, P. B., mercury as a dispersion medium; colloid nature of iron amalgam, A., 1114.
- Rabinovitsch, V., alveolar carbon dioxide tension in natural sleep and in that induced by soporifics, A., 813.
- Rabinowitz, J. See Wolf, Hans.
- Rác, F. See Votoček, E.
- Racciu, G. See Giua, M.
- Rachor, J. See Gen. Aniline Works, Inc.
- Rackwitz, E., protection against corrosion by treatment with phosphate, B., 1156.
- Radaeli, G., behaviour of amylase towards starch, A., 111.
- Radeff, T., catalase content of the blood of animals kept in air at low pressures, A., 942.
- Rademacher, A. See Sauerwald, F.
- Radestock. See Lottermoser, A.
- Radio Patents Corporation. See Piffner, E.
- Radiologie Akt.-Ges., and Bennemann, F., Röntgen tubes [with round focal spot], (P.), B., 109.
- Radiovisor Patent, Ltd. See Whalen, F. C.
- Radischtschev, V. P., double decomposition in the absence of a solvent. XII. Fusion curves of the systems silver iodide-metal chlorides of group I, A., 1523.
- Rado, L., cellulose foil, (P.), B., 99.
- Radotinsky, I. See Sherwood, N. P.
- Radsma, W. See Parjono.
- Radtke, G. (Matuschek Metallindustrie G. Radtke), treatment of iron prior to coating with tin or lead, (P.), B., 617.
- Rădulescu, D., and Alexa, V., structure of absorption-resonators of organic chromophores. VI. Chromophoric characteristics of the nitro-group and the structure of its resonator. VII. Polarity of the nitro-group in organic compounds and the existence of *m*-quinonoids, A., 1087.
- Rădulescu, D., Alexa, V., and Bărbulescu, F., structure of absorption-resonators of organic chromophores. IV. Determination of number and geometrical arrangement of electrons in a common resonator, A., 1087.
- Rădulescu, D., and Georgescu, A., structure of absorption-resonators of organic chromophores. V. Factors causing a loss in sharpness of the characteristic absorption bands of a common resonator, A., 1087.
- Rae, J., estimation of carbolic acid in pharmaceutical preparations, B., 440.
- effect of various substances on diffusion of kaolin and certain insoluble carbonates, B., 947.
- Raeburn, C. See Simon, Ltd., H.
- Raeder, B., attachment for electric zinc furnaces, (P.), B., 333.
- Raeder, H. See Mieg, W.
- Raeder, M. G., structure of silver-antimony alloys, A., 21.
- hydrogen overvoltage, A., 863.
- Räth, C., manufacture of a compound of isonaphthyridin, (P.), B., 550*.
- Räth, C., and Sobering-Kahlbaum A.-G., manufacture of hydroxypyridine compounds, (P.), B., 1131*.
- Räth, C. See also Binz, A.
- Rafay, S. A. See Pillai, T. R. N.
- Raffin, R., and Saradjichvili, P., histamine and alkalosis, A., 1316.
- Raffold International Corporation, manufacture of [sized] paper, (P.), B., 985.
- Ragg, M. See Rahtjen, F.
- Ragins, I. K. See Koch, F. C.
- Rahls, E. See Jänecke, E.
- Rahman, E., preparation of artificial resin, wax, and other complex hydrocarbons from coal-distillation residues, (P.), B., 450.
- Rahn, O., size of bacteria as the cause of the logarithmic order of death, A., 116.
- decreasing rate of fermentation, A., 374.
- non-logarithmic order of death of some bacteria, A., 644.
- Rahtjen, F., and Ragg, M., production of pigments, particularly for compositions used as anticorrosives and for painting ships' bottoms, (P.), B., 997.
- Raiford, L. C., Thiessen, G. W., and Wernert, I. J., derivatives of phenyl ether, A., 767.
- Raikov, P. N., mechanism of autoxidation processes, and the formation of and part played by hydrogen peroxide in such processes, A., 556.
- Raimbert, L., conversion of sucrose into dextrose under the influence of moisture and heat, and the necessity of drying sugar after discharge from the centrifuges, B., 1084.
- Raine, W. A., Pollock, R. C., and Union Oil Co. of California, treatment of decolorising clays, (P.), B., 612.
- Raitzyne, J., production of calcium cyanamide, (P.), B., 188.
- Raiziss, G. W., and Abbott Laboratories, production of a mercury compound of 4-nitro-*o*-cresol, (P.), B., 264*.
- Raiziss, G. W., and Clemence, Le R. W., aromatic amides of *N*-arylglycinearsinic acids, A., 937.
- Rajchman, A., equation occurring in the kinetic theory of gases, A., 542.
- Rajewsky, B., irradiation reaction of albumin, A., 718.
- arrangement for measuring small light intensities, A., 1077.
- irradiation reaction of protein, A., 1260.
- Rakovski, E. V., and Sokolov, S. I., ichthyol oil from Kashpir shale, B., 1099.
- Rakuzin, M., relative hydration of the anhydride molecule in natural metallic salt hydrates as a criterion of classification; weathering and limits of existence, A., 732.
- behaviour of sodium sulphate crystals towards cold ethyl and methyl alcohols, A., 1261.
- crystalline hydrates of mellitates and their significance in the theory of the combination of water of crystallisation, A., 1352.
- relative loading of the molecule [with groups] and its solvent power in the case of alcohols, aldehydes, ketones, and carbohydrylates, A., 1553.
- absorption of mercury and mercuric chloride vapours by wood charcoal, B., 642.
- Raleigh, G. J., chemical conditions in maturation, dormancy, and germination of seeds of *Gymnocladus dioica*, A., 1071.
- Raleigh, W. P., Dickey, C. B., and Pittsburgh Plate Glass Co., disinfection of seeds, (P.), B., 29.
- Raleigh, W. P., and Pittsburgh Plate Glass Co., disinfection of seeds, (P.), B., 1166.
- Ralli, E. P., and Tiber, A. M., comparative effects of synthalin and insulin on the depancreatized dog, A., 254.
- Ralston, O. C. See Klein, L., and Steck, L. V.
- Ralston, R. R. See Hendricks, B. C.
- Ramage, H., mineral content of mushrooms, A., 1325.
- Ramage, H. See also Fox, H. M.
- Ramage, J. H. See Westinghouse Lamp Co.
- Ramage, W. H., refractory insulating brick, (P.), B., 60.
- Raman, (Sir) C. V., investigation of molecular structure by light scattering, A., 13.
- diamagnetism and molecular structure, A., 981.
- Ramar Syndicate, Inc. See Marr, R. A.
- Ramart, (Mme.) P., comparative stability of isomerides according to their absorption spectra; relation between absorption in the ultra-violet region and structure of diaryl derivatives of ethylene and ethane, A., 10.

- Ramart, (*Mme.*) P., Biward, (*Mlle.*), and Grunfeldt, space configuration of molecules; ultra-violet absorption of methyl and methylene groups, A., 838.
- Ramart, (*Mme.*) P., and Hoch, J., spatial configuration of molecules, A., 914.
- configuration of molecules in space. III. Ultra-violet absorption of the acids $\text{Ph} \cdot [\text{CH}_2]_n \cdot \text{CO}_2\text{H}$, $\text{Ph} \cdot [\text{CH}_2]_n \cdot \text{CH}(\text{CO}_2\text{H})_2$, and the hydrocarbons $\text{Ph} \cdot [\text{CH}_2]_n \cdot \text{Ph}$, A., 1182.
- Ramart, (*Mme.*) P., and Salmon-Legagneur, F., absorption spectra of dibasic aliphatic acids in the ultra-violet, A., 10.
- relative stability of isomerides according to absorption spectra. II. Isomerisation of ethylene oxides and dehydration of glycols, A., 86.
- space configuration of molecules; ultra-violet absorption of alkylmalonic acids, A., 452.
- Ramart-Lucas. See Ramart.
- Ramaswamy, C., Raman effect in diamond, A., 662.
- Raman spectra of inorganic sulphates and nitrates, A., 1344.
- Rambaud, R. See Bourquel, M.
- Rambush, N. E. See Power-Gas Corp., Ltd.
- Ramesohl & Schmidt Akt.-Ges., centrifugal machines or separators, (P.), B., 307.
- centrifuges, (P.), B., 1096.
- Ramesohl & Schmidt Akt.-Ges., and Schmitz, C., bearing-protecting devices for centrifugal separators, (P.), B., 645.
- Ramesohl & Schmidt Akt.-Ges. See also Schmitz, C.
- Ramos, T., theory of relativity and the spectral lines of hydrogen, A., 263.
- Ramsauer, C., and Kollath, R., effective cross-section of inert-gas molecules towards electrons below 1 volt, A., 7.
- effective cross-section of non-inert-gas molecules with respect to electrons below 1 volt, A., 269.
- effective cross-section of the gas molecule with respect to electrons below 1 volt, A., 1495.
- Ramsburg, C. J., and Koppers Co., gas-purification process, (P.), B., 1101.
- Ramsden, W., denaturation of proteins by carbamide, A., 1604.
- Ramser, H., and Wiberg, E., magnetically-operated mercury float-valve for high-vacuum work, A., 730.
- Ramser, H. See also Stock, A.
- Ramsey, J. B., and Robinson, A., reaction of iodate and quadrivalent vanadium in alkaline solutions, A., 445.
- Ramsperger, H. C., effect of ethane and nitrogen on the rate of thermal decomposition of azomethane at low pressures, A., 425.
- Ramsperger, H. C., and Tolman, R. C., decomposition of nitrogen pentoxide at very low pressures, A., 547.
- Rancaño, A. See Del Campo, A., and Guzmán, J.
- Randall, J. T., Rooksby, H. P., and Cooper, B. S., diffraction of X-rays by vitreous solids and its bearing on their constitution, A., 526.
- structure of glasses; evidence of X-ray diffraction, A., 1359.
- Randall, J. T. See also Gen. Electric Co.
- Randall, M., and Allen, C., interpretation of colligative properties of weak electrolytes, A., 859.
- Randall, M., and Cann, (*Miss*) J. Y., potential of lead-lead ion, A., 422.
- Randall, M., and Halford, J. O., distribution of ammonia between toluene and aqueous silver ammonia chloride and hydroxide, and of hydrogen cyanide between benzene and aqueous hydrogen silver cyanide, A., 419.
- equilibria involving complex ions of silver and the free energy of silver compounds, A., 419.
- Randall, M., and Mohammad, A., synthesis and free energy of methane, B., 49.
- Randall, M., and Murakami, S., free energy of stannous hydroxy-chloride and the activity coefficient of stannous chloride and stannous ion, A., 1521.
- Randall, M. See also Hoskins, W. M.
- Randall, R. H., mean lives of lines of mercury triplet 2^3P_{012} — 2^3S_1 , A., 970.
- Randall, S. S. See Harington, C. R.
- Randoin, L., alimentary equilibrium and nutrition, A., 1221.
- Randoin, L., and Lecoq, R., curative action of dried or sweetened concentrated, cow's milk on experimental rickets of the rat, A., 241.
- choice of a test animal for the study of the nutritive equilibrium of milks, A., 1212.
- biological investigations with milk changed by the removal of fats and the addition of carbohydrates, A., 1212.
- Randoin, L., and Michaux, A., lipocytic coefficient and resistance to hæmolysis of red blood-corpuscles in the course of experimental scurvy, A., 949.
- Randolph, E. E., quality of the surface waters of N. Carolina, A., 187.
- Ranedo, J., rapid differentiation of precipitated calcium carbonate and pulverised chalk or limestone, B., 555.
- Ranedo, J., and Vidal, A., catalytic perhydrogenation of iso-quinoline, A., 480.
- Ranganathan, S. See Newcomb, C.
- Rangaswami, M., and Venugopalan, M., physical properties of shellac solutions. II., B., 110.
- Rangaswami, M. See also Venugopalan, M.
- Ranis, L. See Berl, E.
- Ranker, E. R., synthetic nutrient solutions for *Ustilago zeæ*, A., 1621.
- Rankin, D. A. See M.-O. Valve Co., Ltd.
- Rankin, J. S., effect of tensile overstrain on the magnetostriction of steel, B., 376.
- Rankin, W. H. See Streeter, L. R.
- Rankine, W. P. See Boyce, E. G.
- Rankoff, G., transformation of oleic into elaidic acid by means of sulphur, A., 65.
- transformation of erucic into brassidic acid by means of sulphur, A., 1406.
- Ransom, L. L., heating of liquids, (P.), B., 644.
- Ranson, S. W. See Davenport, H. A.
- Rao, A. S., and Narayan, A. L., As III spectrum, A., 125.
- second spark spectrum of lead, A., 390.
- structure of the Pb IV spectrum, A., 511.
- Rao, A. S. See also Narayan, A. L.
- Rao, I. R., Raman effect in water, A., 662.
- study of electrolytic dissociation by the Raman effect. I. Nitric acid, A., 840.
- study of electrolytic dissociation in nitric acid by the Raman effect, A., 1370.
- Rao, K. A. N., studies in "strainless" rings. I. β -Substituted stereoisomeric decalins, A., 87.
- studies in "strainless" rings. II. Effect of the *trans*-decalin nucleus on the carbon tetrahedral angle, A., 914.
- Rao, K. R., spectrum of trebly-ionised selenium, A., 1489.
- Rao, M. G., and Subrahmanyam, V., soil *Actinomyces*. III. Standardisation of a plate method of counting soil *Actinomyces*, A., 502.
- Rao, M. G. See also Pillai, T. R. N.
- Rao, S. R., total secondary electron emission from polycrystalline nickel, A., 1080.
- total secondary electron emission from a single crystal face of nickel, A., 1081.
- Rao, S. R. See also Richardson, O. W.
- Rao, S. V. R., photo-voltaic properties of phototropic mercury compounds, A., 274.
- Rao, V. A. See Varma, P. S.
- Raper, H. S. See Dulière, W. L.
- Rapoport, I. B. See Karavaev, N. M., and Schachno, A. P.
- Rapoport, M. See Jones, J. H., and Panjutin, P.
- Rappaport, F. See Haas, P.
- Raquet, D. See Caron, H.
- Rasch, O., production of compound yarns or threads, (P.), B., 280.
- manufacture of [composite] textile yarn or thread, (P.), B., 656.
- Rasch, R. H. See Richter, G. A.
- Rascheva-Trifonova, E. See Trifonov, I.
- Rashevsky, N. von, special case of hysteresis phenomenon in physico-chemical systems, and its possible explanation of some biological problems, A., 25.
- thermodynamics of systems with several equilibria. I. and II., A., 420.
- time effect in thermodynamic processes and the hysteresis phenomena arising therefrom, A., 698.
- ionic theory of nerve excitation, A., 1314.
- hysteresis in biophysics, A., 1314.
- are resonance phenomena possible in physico-chemical periodicity? A., 1496.
- chain reactions produced by physical structure, A., 1529.
- Raschig, F., manufacture of [6-jehlorothymol, (P.), B., 810*.
- Raschig, K. See Curtius, T.
- Rasnikov, J. P., mechanism of formation of "duodenal secretin," A., 1069.
- Rasetti, F., rotation-Raman spectra of nitrogen and oxygen, A., 840.

- Rasetti, *F.*, Raman effect of diatomic molecules, A., 1490.
- Rašin, *R.* See Emich, *F.*
- Rask, *O. S.* See McCollum, *E. V.*, and Orent, *E. R.*
- Rasmussen, *A.*, and Rasmussen, (*Mrs.*) *K. M. I.*, washing and boiling machines [for laundries, etc.], (P.), B., 1107.
- Rasmussen, *E.*, series in the spectrum of radium emanation, A., 265.
are spectrum of radium emanation, A., 1076.
- Rasmussen, (*Mrs.*) *K. M. I.* See Rasmussen, *A.*
- Rasquin, *H.*, "bleeding" of [red] pigments, B., 25.
fast pigments for façades, B., 917.
- Rasselsteiner Eisenwerks-Ges. A.-G., and Främbs, *H.*, production of tinplate, (P.), B., 1034.
- Rassers, *J. R. F.* See Pohlmann, *J.*
- Rassow, *B.*, and Aehnelt, *W.*, spectrographic investigations of cellulose derivatives, A., 10.
- Rassow, *B.*, Voerster, *T.*, and Wolf, *L.*, preparation of viscose from wood pulp, B., 857.
- Rassow, *B.*, and Wolf, *L.*, composition of alkali-cellulose from cotton, A., 198.
- Rassweiler, *G. M.* See Gregory, *D. V.*
- Ráth, *A. von*, significance of determination of hydrogen-ion concentration in estimating the lime condition of the soils between the Danube and the Theiss, B., 207.
regularity of the absorption process in the determination of hydrolytic acidity [in soils], B., 254.
- Rath, *W. C.*, reclaiming lubricating oil, (P.), B., 134.
- Rathbun, *J. P.*, locating the obstruction in a clogged line of the [ammonia] compressor, B., 85.
- Rathbun, *J. P.* See Westinghouse Electric & Manuf. Co.
- Rathbun, *R. B.*, and American Smelting & Refining Co., [electrodes for] electrostatic precipitator, (P.), B., 1160.
- Rathert, *H.* See Herminghaus & Co. G.m.b.H.
- Rathery, *F.*, Kurilsky, *R.*, and Gibert, *S.*, effect of insulin on the absorption of dextrose by blood corpuscles in diabetic dogs, A., 254.
effect of folliculin on the blood-sugar of ovariectomised dogs, A., 1069.
initial changes in the liver- and muscle-glycogen in fasting dogs under the influence of insulin. II. Initial changes in the liver- and muscle-glycogen in pancreatocotomised dogs, A., 1480.
- Rathery, *F.*, Kurilsky, *R.*, and Laurent, (*Mlle.*) *Y.*, effect of insulin on the dextrose absorption of normal red corpuscles, A., 254.
restoration of blood-sugar by the liver, A., 491.
- Rathlef, *H. von*, how may nitrogen losses in the making of farm-yard manure be avoided? B., 73.
fertilisation experiments with stable manure, their evaluation and interpretation, B., 631.
podzols and moor soils of Russia and the Baltic states, B., 832.
- Rathsburg, *H.*, manufacture of a tetrazene explosive, (P.), B., 930.
- Rathsburg, *H.*, and Herz, *E. von*, manufacture of priming compositions, (P.), B., 930.
- Rathsburg, *H.*, and Rheinisch-Westfälische Sprengstoff-Akt.-Ges., primer composition, (P.), B., 219*.
- Ratner, *E. I.*, calcium cyanamide as a nitrogen fertiliser, B., 631.
- Rau, *F.* See Berl, *E.*
- Rau, *H.* See Freudenberg, *K.*
- Rau, *M. A. G.* See Lunt, *R. W.*
- Raub, *E.* See Leroux, *J. A. A.*
- Raudenbusch, *W.* See Curtius, *T.*
- Raudnitz, *H.*, [action of potassium persulphate on *p*-cresol in neutral solution], A., 468.
- Raudnitz, *H.* [with Mattausch, *J.*], 2(3):10-dichloro-1-hydroxy-4:9-anthraquinone, A., 91.
- Raudnitz, *H.* See also Meyer, *Hans.*
- Rauer, *P.*, method and apparatus for applying colours to fibrous textile fabrics, (P.), B., 763.
- Raujouan, *E. M.*, apparatus for production of gas from wood and dry purification thereof, (P.), B., 311.
- Raum, *H.* See Koeler, *L.*
- Raupp, *K. H.*, use of crude [ammoniacal] gas-liquor as a fertiliser, B., 386.
- Raurieh, *F. E.*, systematic qualitative separation and identification of inorganic anions, A., 1392.
determination of hypophosphorous, phosphoric, and glycerophosphoric acids in pharmaceutical mixtures of their salts, B., 440.
- Rauschnig, *S.* See Grimmer, *W.*
- Rauterbeng, *M.*, economic principles of stall manure management, B., 962.
- Rauterbeng, *M.* See also Nolte, *O.*
- Rauterbeng, *E.*, sedimentation apparatus [for soils], B., 259.
- Ravenna, *C.*, and Nuccorini, *R.*, cyclodipeptides of asparagine, A., 617.
- Ravenscroft, *E. A.*, lime-co-ordinate charts for representing chemical engineering data, B., 85.
- Ravenswaay, *H. J.* See Meulen, *H. ter.*
- Ravikovitch, *A.*, law of periodicity. VI. Esterification of certain alcohols and activity of mesitylene, A., 865.
- Ravikovitch, *C. M.* See Isgarischev, *N. A.*
- Ravikovitch, *S.*, exchangeable cations and lime requirement in differently fertilised soils, B., 960.
- Rawdon, *H. S.*, and Knight, *D. A.*, comparative properties of wrought iron made by hand-puddling and by the Aston process, B., 375.
- Rawling, *S. O.*, recent advances in our knowledge of the latent photographic image, B., 167.
- Rawlings, *J. V.*, and Beus, *E. M.*, [centrifugal] gold separator, (P.), B., 994.
- Rawlins, *F. I. G.*, visible absorption spectra in some crystalline salts of the rare earths, A., 11.
form of the molecule of carbon dioxide, A., 19.
two theorems on the degeneration of gases, A., 132.
- Rawlins, *F. I. G.* See also Snow, *C. P.*
- Rawlins, *L. M. C.*, and Schmidt, *C. L. A.*, combination between dyes and gelatin granules, A., 1303.
- Rawson, *R. N.*, recovery of surplus preservatives in treatment of timber, (P.), B., 1031.
- Ray, *A. B.*, and Carbide & Carbon Chemicals Corporation, preparation of absorptive carbon, (P.), B., 132.
- Ray, *A. B.*, Felbeck, *G. T.*, and Carbide & Carbon Chemicals Corporation, recovery of adsorbable substances [from gaseous mixtures], (P.), B., 493*.
- Ray, *A. C.* See Sen, *K. C.*
- Ray, *B. B.*, origin of the spark lines in X-ray spectra, A., 4.
scattering of X-rays by bound electrons, A., 833, 972, 1334.
- Ray, *B. B.*, and Mukherjee, *B. C.*, atomic dimensions, A., 977.
- Ray, *F. E.*, decomposition of optically active diazo-compounds, A., 1281.
- Ray, *G. B.*, and Isaac, *L. A.*, spleen. IV. Formation of colourless form of hæmoglobin after splenectomy, A., 366.
- Rây, *J. N.*, 6(or 8)-nitro-1-phenylphthalazine, A., 95.
- Rây, *J. N.* See also Aggarwal, *J. S.*, Bhagat, *K. L.*, and Singh, *G.*
- Ray, *K. W.*, properties of strontium-tin alloys, B., 866.
- Ray, *K. W.*, and Thompson, *R. G.*, barium-tin alloys, A., 681.
- Ray, *K. W.* See also Gould, *H. W.*
- Rây, *N.* See Sarkar, *P. B.*
- Rây, *P.*, microchemical reactions of copper, nickel, and cobalt with dithio-oxamide, A., 182.
- Rây, *P.*, and Sarkar, *P. B.*, applications of hexamethylenetetramine, ammonia, and hydrazine as micro-chemical reagents, A., 1544.
- Rây, (*Sir*) *P. C.*, chemical elements and compounds, A., 555.
isomorphism and chemical homology, A., 1351.
- Rây, (*Sir*) *P. C.*, and Adhikary, *N.*, complexes of mercuric iodide with alkylsulphonium iodides, A., 1020.
- Rây, (*Sir*) *P. C.*, and Gupta, *S. C. S.*, new type of complex platinum compounds; ter- and quinquivalent platinum. II., A., 440.
- Rây, (*Sir*) *P. C.*, and Mitra, *S. K.*, synthesis of lengthened sulphur chain compounds, A., 320.
- Rây, (*Sir*) *P. C.*, and Mukherjee, *P. C.*, action of bases on complex compounds derived from organic thio-compounds and platinum chloride, A., 320.
complex compounds of chloroferic acid with organic sulphur compounds; the analogy of gold and iron compounds, A., 439.
- Rây, (*Sir*) *P. C.*, and Sen, *D. C.*, complexes of gold chlorides with organic sulphides, A., 738.
- Ray, *P. R.*, magnetic susceptibility of certain complex molybdenum compounds, A., 1505.
- Ray, *P. R.*, and Maulik, *S. N.*, complex ammoniacal cobalt molybdates, A., 1390.
- Ray, *R. C.*, and Ganguly, *P. B.*, optimum conditions for the formation of silica gel from alkali silicate solutions. I. A., 413.
- Ray, *S.*, surface tension in a vacuum, A., 287.
current phenomena in electrolytic and thermo-electric circuits, A., 1126.

- Ray, S., function of the Wehnelt interrupter and the crystal conductor, A., 1126.
electrolytic resistance with alternating current, A., 1253.
- Raybaud, L., nutritional value of sprouting grain, A., 246.
- Raycol, Ltd. See Bernardi, A.
- Rayleigh, (Lord), ultra-violet transmission band of metallic silver, as affected by temperature, A., 1076.
iridescent colours of birds and insects, A., 1202.
- Raymond, A. L. See Levene, P. A.
- Raymond, E., oxidation of benzaldehyde, A., 1582.
- Raymond-Hamet, M., comparison of physiological action of aspidospermino and quebrachine, A., 1214.
- Raynaud, M. See Bert, L.
- Rayner, A., method of washing [yarns, fabrics, etc.], (P.), B., 986.
- Raynolds, J. A., and Reedy, J. H., calcium perchromate; new type of red porchromate, A., 873.
- Raytheon, Inc., electron-discharge device, (P.), B., 825.
- Raytheon, Inc. See also Smith, C. G.
- Razubaiev, G. A., paraffinisation of alcohols, A., 1552.
- Razubaiev, G. A., and Benediktov, A., reduction of derivatives of dihydrophenarsazine, A., 627, 1051.
- Razubaiev, G. A., also Ipatiev, V. N., and Wieland, H.
- Read, C. L. See La Mer, V. K.
- Read, J., optical superposition, A., 1094.
- Read, J., and Campbell, I. G. M., optically active diphenyl-ethylene oxide, A., 339.
optically active diphenylhydroxyethylamines and isohydrobenzoins. III. Optically active diphenylethylene oxides, A., 1576.
- Read, J., and Storey, R. A., optical superposition among menthylamines and menthols, A., 136.
- Read, J. B. See Coolbaugh, M. F.
- Read, W. C., and Electro Metallurgical Co., silicothermic metallurgy; [manufacture of ferrochromium], (P.), B., 1033.
- Reade, T. H. See Macmillan, W. G.
- Reader, V., further evidence for a third accessory "B" factor, A., 380.
- Réalisation des Brevets Français Amoureux & Co., and Wickel, F. C., manufacture of transparent paper resistant to fat and moisture, (P.), B., 279.
- Reardon, J. V., and Reardon Co., coating composition [for painting cement, etc.], (P.), B., 726.
- Reardon Co. See Reardon, J. V.
- Reavell, J. A., electric heating apparatus for heating bituminous or other materials, (P.), B., 21.
evaporating plant, (P.), B., 1097.
- Rebagliati, E. E., determination of hexamethylenetetramine, B., 50.
- Reber, K. See Casparis, P.
- Reber, R. K. See Winchester, G.
- Reberg, W. A. See Uglow, W. A.
- Reboul, G., activation of matter, A., 129, 393.
- Reboul, G., and Déchène, G., activation of matter by a surface discharge, A., 976.
- Rebourg & Dupont, molting furnace for metals, (P.), B., 244.
- Rebuffat, O., action of saline waters on hydraulic cements, B., 241.
- Recarte, P. See Fuentes, B. V.
- Rector, T. M., and Emulsol Corporation, preservation of eggs, (P.), B., 530.
- Reddelien, G., Müller, Werner, and Agfa Ansco Corporation, development of photographic materials and developer therefor, (P.), B., 641*.
- Reddish, W. T., and Kontol Co., treatment of emulsions, (P.), B., 978.
- Reddish, W. T. See also Fischer, C., jun.
- Reddy, C. S., fungicidal efficiency of chemical dusts containing furfuraldehyde derivatives, B., 681.
- Reddy, C. S., and Burnett, L. C., seed treatments for the control of barley stripe, B., 785.
- Redeker, H. E., and Leighton, P. A., Poulsen arc as a means of detecting traces of impurities in metals, A., 1546.
- Redfearn, H. See Brownsey, P.
- Reding, R. See Errera, J.
- Redisch, W., and Bloch, B. M., influence of speed of resorption on the action of insulin, A., 117.
- Redlich, O., molecular condition of water, A., 25.
- Redlich, O., and Loeffler, G., new fixed temperature points, A., 1373.
- Redlich, O. See also Abel, E.
- Redman, L. V., and Bakelite Corporation, moulding mixture, (P.), B., 158.
- Redmayne, G., galvanic batteries, etc., (P.), B., 65.
- Reed, C. I. See Weaver, W. K.
- Reed, G. B. See Budd Wheel Co., and Gibbons, N. E.
- Reed, H. M. See Joslyn, M. A.
- Reed, H. R. See Leonard, L. T.
- Reed, L. L., Anderson, W. E., and Mendel, L. B., factors influencing distribution and character of adipose tissue in the rat. II. Influence of diet, under-nutrition, fasting, and activity on distribution and character of fat, A., 951.
- Reed, O. E., and Huffman, C. F., mineral feeding with dairy cattle, B., 1129.
- Reed, R. D., and Withrow, J. R., zirconium. V. Detection of traces of potassium in presence of zirconium, A., 52.
zirconium. VI. Use of dispersoids in detection of traces of potassium by zirconium sulphate, A., 1150.
- Reed, W. H. E., effect of pasteurisation temperature on the physical properties of milk, B., 1128.
- Reed, W. H. E., and Garrison, E. R., effect of processing ice-cream mixtures at different pressures when the milk solids-not-fat content is varied, B., 1044.
- Reed, W. M., and Hegan, C. P., air filter, (P.), B., 695.
- Reed & Co., Ltd., A. E., and Sheldon, C. D., paper pulp beating machines, hollanders, refiners, etc., (P.), B., 369.
- Reedy, J. H., reductor apparatus for detecting tin, A., 568.
- Reedy, J. H. See also Brown, M. H., and Raynolds, J. A.
- Reel, J. H., Cude, H. E., and Naugatuck Chemical Co., manufacture of rubber compositions, (P.), B., 158.
- Reerink, E. H., and Wijk, A. van, photochemical reactions of ergosterol, A., 175.
vitamin-D. I. Photochemical reactions of ergosterol, A., 256.
- Rees, E. W., solution of magnesium citrate, B., 1090.
- Rees, W. J., and Chesters, J. H., preliminary investigation of the magnesia-zircon series, B., 990.
- Rees, W. J. See also Brit. Cast Iron Res. Assoc., Chesters, J. H., and Hugill, W.
- Reesman, J. See Delépine, M.
- Refiners, Ltd. See Cox, K.
- Refinol Manufacturing Corporation. See Harris, W. D.
- Regler, F., electrical properties of galena crystals, A., 402.
- Regner, A., magnetometric determination of the Curie points, B., 1035.
- Régnier, J., and Valette, G., fixation of cocaine hydrochloride on nerve fibres, A., 1063.
- Régnier, J. See also Mercier, F.
- Rehberg, See Flössner, O.
- Rehberg, P. B. See Krogh, A., and Ni, T. G.
- Rehbinder, P., stabilising action of capillary-active substances on suspensions of hydrophobic and hydrophilic powders in water and non-aqueous dispersion media. I., A., 290.
- Rehbinder, P., and Taubmann, A., dependence of boundary surface activity and orientation of polar molecules on temperature and on the nature of the surface of separation. VI. Boundary surface properties of aromatic amines and their salts, A., 687.
- Rehländer, P., kinematograph films, (P.), B., 687.
- Rehling, C. J. See Bayer, L. D.
- Rehorst, K., hydroxy-acids of the sugar group. II., A., 1407.
- Reich, F. See Abderhalden, E.
- Reich, G. T., development of distillation processes for producing ethyl alcohol, B., 164.
- Reich, H. J., sodium-argon glow-tube, A., 885.
- Reich, J., case-hardening agent for iron and steel, (P.), B., 105.
- Reich, V. See Haefinger, M.
- Reichardt, O., clarification [of wine] with potassium ferrocyanide, B., 479.
- Reichardt, H., and Bonhoeffer, K. F., absorption spectra of dissolved mercury, A., 1330.
- Reichardt, H. See also Bonhoeffer, K. F.
- Reichenheim, O. See Finkelnburg, W., and Lau, E.
- Reichert, T. See Terroine, E. F.
- Reichstein, T., α -furylacetic [furan-2-acetic] acid and an interesting isomerisation in the furan series, A., 611, 923.
aldehyde syntheses in the furan series, A., 783.
ketone syntheses in the furan series, A., 783.
aldehyde syntheses: comparison of the three simplest five-ring heterocyclic compounds, A., 787.
- Reichstein, T., and Beitter, H., composition of the odoriferous compounds of roasted chicory, A., 827.

- Reichstein, T. See also Staudinger, H.
- Reid, A., oxidation of apparently auto-oxidisable leuco-bases by molecular oxygen, A., 1381.
- Reid, D. M., salinity interchange between sea-water in sand and overflowing fresh water at low tide, A., 448.
- Reid, E. E. See Borgstrom, P., Du Pont de Nemours & Co., E. I., Edwards, W. R., jun., Glass, H. B., Hann, R. M., Lavin, G. I., Malone, G. B., Markley, K. S., and Ott, Emil.
- Reid, E. W. See Fife, H. R., and Frazier, R. B.
- Reid, J., [supplying air to marine-type boiler] furnaces, (P.), B., 4.
- Reid, R. H. See Reid, W.
- Reid, W., Reid, R. H., and Reid, W., jig washers [for washing coal, etc.], (P.), B., 650.
- Reid, W. J., jun. See De Long, D. M.
- Reid Power Development Co., and Hinchley, J. W., manufacture of producer gas, (P.), B., 892.
- Reidemeister, W. See Kappeller, G.
- Reif, G., luminescence of creatinine, B., 36.
- Reif, G., detection of fruit wine in grape wine by means of the sorbitol method, B., 737.
- Reif, W. See Moser, L.
- Reifenberg, A., influence of colloidal silica on the assimilation [by plants] of the phosphoric acid of rock phosphates, B., 735.
- Reifenberg, A., and Frankenthal, L., soil reaction and growth; effect of phosphate solutions of varying hydrogen-ion concentration on the respiration and germination of seed, A., 964.
- Reihlen, H., Gruhl, A., Hessling, G. von, and Pfengle, O., [metallic carbonyls and nitrosyls. IV., A., 1539.
- Reihlen, H., and Kraut, F., complex cyanides. IV. Compounds of heavy metals with chromicyanic acid, A., 586.
- Reilly, A. See Coggeshall, G. W.
- Reilly, G. See Miles, E. H.
- Reilly, J., Creedon, T. V., and Drumm, P. J., nitration of substituted phenylbenzylamine derivatives, A., 904.
- Reilly, J., and Donovan, P. P., polysaccharides. I. Inulin and inulan, A., 896.
- Reilly, J., Donovan, P. P., and Burns, K., xylan, A., 1560.
- Reilly, J., and Drumm, P. J., substituted diaryl ethers. III. New synthesis of substituted xanthohydrols, A., 612.
- Reilly, J., and McSweeney, D. T., polysaccharides. II. Purification of the natural products, A., 896.
- Reilly, J., Pringsheim, H., and Donovan, P. P., starch. XXIII. Glycogen, A., 895.
- Reilly, J., Wolter, R., and Donovan, P. P., polysaccharides. III. Acetamide as a polysaccharide solvent, A., 1561.
- Reilly, J. See also Donnelly, J. T., O'Sullivan, C., and Pringsheim, H.
- Reilly, P. C. See Derby, I. H.
- Reimann, A. L., and Murgoci, R., thermionic emission and electrical conductivity of oxide cathodes, A., 657.
- Reimer, M., and Tobin, E., bromination of 2:4-dimethoxycinnamic acid, A., 340.
- Reimers, K., limits of availability of the quinhydrone electrode in the examination of human body-fluids, A., 1485.
- Rein, E. See Vesely, V.
- Reinicke, R., lime-sensitiveness of yellow lupins and the rôle of the nodule bacteria in lupin sickness, B., 735.
- Reindel, F., pilzceribrin. I., A., 920.
- Reindel, F., and Niederländer, K., acid from degradation of ergosterol, A., 1578.
- Reindel, F., and Weickmann, A., zymosterol. II., A., 1578.
- Reinders, W., and Klinkenberg, A., ternary system strontium oxide-sucrose-water. I. and II., A., 36.
- Reiner, M., theory of plastic flow in the rotation viscosimeter, A., 145.
- Reiner, M., hydrodynamics of systems of variable viscosity. III., A., 679.
- Reiner, M., search for a general law of the flow of matter, B., 844.
- Reiner, M. See also Sobotka, H.
- Reiner, S., [electrical] furnace for high temperatures, B., 465.
- Reinhard, H., recovery of by-products or waste resulting from the manufacture of dry [zinc oxide] pigments for production of oil paints, enamel paints, etc., (P.), B., 204, 1079*.
- Reinhardt, B., production of alkali hydrosulphides from barium hydrosulphide and alkali chlorides, (P.), B., 57.
- Reinhart, G., jun., and Gesellschaft für Kältechemie m.b.H., liquid mixture of low f. p., (P.), B., 799*.
- Reinholz, A. See Korczynski, A.
- Reinicke, R., simple possibility for the clear representation of X-ray levels by means of a face-centred cubic space lattice scheme, A., 19.
- Reinicke, R., benzene ring problem, A., 136.
- Reinicke, R., aggregation of atoms to molecules and crystals from the point of view of the atomic forms derived from a consideration of space lattices. II. Oxygen and doubly-linked carbon. III. Nitrogen, A., 139.
- Reinicke, R., structure of the water molecule and its relation to Werner's co-ordination law in general and to the crystal structure of water in particular, A., 525.
- Reinitzer, B., and Pellet, H., volumetric determination of hydrothiocyanic acid with permanganate, A., 1391.
- Reinke, E. A. See Salle, A. J.
- Reinkober, O., and Bluth, M., "Reststrahlen" of univalent and bivalent fluorides, A., 1500.
- Reinwein, H., possibility of using *d*-sorbitol in the treatment of diabetes mellitus, A., 241.
- Reinz Dichtungs-Fabr., H., [asbestos-metal] packing material [for cylinder blocks of internal-combustion engines] and its manufacture, (P.), B., 225.
- Reis, E. See Diltney, W.
- Reischach & Co. G.m.b.H., tanning of animal hides, (P.), B., 207.
- Reischach & Co. G.m.b.H., gasification of earthy raw brown coal, (P.), B., 229.
- Reischach & Co. G.m.b.H., production of serum for prevention and cure of tuberculosis, (P.), B., 441.
- Reisemann, E., position of the activated carbon process for the recovery of benzol from coke-oven gas and coal gas, B., 801.
- Reisemann, E. See also Evans, K.
- Reiss, J. See Dziewonski, K.
- Reiss, M., action of the parathyroid hormone, A., 117.
- Reiss, M., and Haurowitz, F., sexual hormone of the anterior pituitary lobe, A., 1070.
- Reiss, M. See also Ehrenhaft, F., and Mori, S.
- Reistal, M. See Landesen, G.
- Reiter, T., influence of wave-lengths on vitamin[-D] formation, A., 119.
- Reith, J. F., α -naphthafavone as indicator in iodometry, A., 180.
- Reith, J. F., iodine content of sea-water, A., 315.
- Reith, J. F., micro-determination of iodides in the presence of other salts, A., 386.
- Reith, J. F., micro-determination of iodine, A., 1628.
- Reith, J. F., and Bouwman, J. H. A., quantitative analysis of azides, A., 880.
- Reitmeister, W., melting and deoxidising metals and alloys, (P.), B., 513.
- Reitstötter, J. See Wolf & Co. Kommandit-Ges. Auf.-Akt.
- Rekved, J. See Ornstein, L. S.
- Remedium Chemisches Institut G.m.b.H., manufacture of a readily soluble complex silver compound [thiosulphate], (P.), B., 712.
- Remelin, F. L. See Du Pont de Nemours & Co., E. I.
- Remen, R. E. See Volkovich, S. I.
- Remenec, J. See Krauz, C. K.
- Remesov, I., blood changes in experimental cholesteryl ester sclerosis, A., 106.
- Remesov, I., colloidal condition of cholesterol, cholesteryl ester, and lecithin. I. Preparation of cholesterol and lecithin sols; coagulation experiments; coagulation swelling values at different p_H ; coagulation velocity measurements and precipitation by electrolytes. II. Electrokinetic measurements; the ζ -potential and the cataphoretic velocity of migration of cholesterol sols. III. The electric properties of cholesterol and lecithin sols; measurements of the electrical conductivity and dielectric constant. IV. Dialysis of colloidal cholesterol and lecithin. V. Cholesterol gels, swelling experiments, and the permeability of the gels obtained, A., 415.
- Remesov, N. P., oxidation and reduction processes in podsol soils, B., 72.
- Remesov, N. P., influence of liming on the dynamics of soil processes, B., 922.
- Remington, R. E., McClendon, J. F., Kolnitz, H. von, and Culp, F. B., determinations of traces of iodine. IV. Iodine in small quantities of thyroid and other tissues, A., 828.
- Remington, R. E., and Shiver, H. E., iron, copper, and manganese content of some common vegetable foods, B., 392.
- Remington, R. E. See also McClendon, J. F.
- Remington Arms Co., Inc. See Woodford, W. H.
- Remmes, M. M. See Wiggin, J. D.
- Remser, H., and Wiberg, E., course of the formation of boric esters from boron halides and ethers. I., A., 890.
- Remy, E., chemical detection of vitamins; existence of a specific growth-vitamin, A., 1070.

- Remy, E., comparative colorimetric determination of p_H in [bacteriological] media, A., 1621.
composition of light lager beers, B., 963.
- Remy, E., and Richter, F., composition of wines from Baden, with special reference to their arsenic content, and the use of Bezssonoff's reagent for the detection of vitamin-C, B., 627.
- Remy, T. [with Ohly, E., and Weiske, F.], sugar-beet trials in 1929, B., 633.
- Remy, T., Meer, F. von, and Völker, H., influence of manuring and spacing on the soundness of potatoes, B., 1083.
- Remy, T., and Weiske, F., nature and course of the nutrient intake of various vegetables, B., 834.
- Remy, W. See Roitzheim, A.
- Remy-Genneté, P., action of hydrogen and hydrocarbons on barium, A., 1262.
- Renaudie. See Mailhe, A.
- Renaux, E. See Bordet, J.
- Renck, H., printing plates and processes for use in the production thereof, (P.), B., 333.
- Rendall, A. G. See Morland & Impey, Ltd.
- Rendall, G. R. See Teegan, J. A. C.
- Renfrew, A. G., Bass, S. L., and Johnson, T. B., chemical changes accompanying the growth of avian tubercle bacilli on Long's synthetic medium, A., 377.
- Renfrew, A. G. See also Anderson, R. J.
- Renker, A. See Renker, M.
- Renker, G. See Renker, M.
- Renker, H. See Renker, M.
- Renker, M., Renker, G., Renker, H., and Renker, A. (Durener Fabrik präparierter Papiere Renker & Co.), development of [diazotype] photo-prints, (P.), B., 1005.
- Renner, K. M. See Martin, W. H.
- Renner, W. See Buseh, M.
- Rennotte, J., extraction and purification of pectin, (P.), B., 393.
- Rensch, M., painting processes, (P.), B., 571.
- Renshaw, A. See Dyson, G. M.
- Renshaw, R. R., and Hunt, R., physiological action of some homologues of betaine and choline esters, A., 111.
- Rentschler, H. C. See Marden, J. W., and Westinghouse Lamp Co.
- Reposi, E., mineralogical study of the soil of the Vercelli district, A., 1016.
- Reppe, W. See I. G. Farbenind. A.-G.
- Reppman, A., furnace walls, (P.), B., 271.
suspended roofs for furnaces, etc., (P.), B., 696.
- Reppman, A. See also Hofius, T.
- Republic Flow Meters Co., means for the control of temperature, (P.), B., 444.
- Republic Flow Meters Co. See also Cunningham, A. B.
- Requa, M. L. See Cox, T.
- Research Corporation and Fiedler, M., surface plating of metals [e.g., iron and steel] with [chromium] alloys, (P.), B., 952.
- Reside, D. M. See Page, I. H.
- Resnitschenko, M. S., rise in urinary acidity during work and its relation to fatigue, A., 810.
- Resnitschenko, M. S., and Kosmin, N. P., excretion of acid in urine during work. IV. Excretion of lactic and phosphoric acids in relation to urinary acidity, A., 109.
- Restaino, S. See Zambonini, F.
- Rettger, L. F. See Plasteridge, W. N.
- Retzov, U., correction of thermo-elements for temperature variations of the cold junction, A., 186.
- Reuleaux, O., [copper]-aluminium alloys, (P.), B., 514.
- Reuscher, F. See I. G. Farbenind. A.-G.
- Reuss, W., flux for welding, (P.), B., 914.
- Reuss, W. See also Foerster, F.
- Renter, F., application of a modern turbine for the utilisation of steam used in the production of [ammonium] sulphate, B., 931.
- Reuter, R. O. See Dynamit A.-G. vorm. A. Nobel & Co.
- Reuterskiöld, J. A., fission of ethylenedisulphonylacetic acid in alkaline solution; sulphinoacetic acid and β -hydroxyethylsulphonylacetic acid, A., 1408.
- Reval, L. See Leulier, A.
- Reverdin, F., supposed 3-nitro-4-ethanesulphonamidophenetole of Autenrieth and Bernheim, A., 208.
nitration of aromatic compounds in alcoholic solution, A., 208.
diacyl derivatives of *p*-anisidine and *p*-phenetidine, A., 1176.
- Revol, L. See Leulier, A.
- Rewadikar, R. S., and Watson, H. E., preparation and physical properties of α -monoglycerides, A., 1655.
- Rewald, B., phosphatides in potatoes, turnips, and carrots, A., 261.
distribution of phosphatides in seeds and seedlings, A., 261.
solubility of phytosterol in ethyl and methyl alcohols, A., 538.
phosphatide content of yeast, A., 642.
are lipoids to be reckoned among the fats [in the analysis of organic materials]? B., 346.
auxiliary means for leather dressing, (P.), B., 1123*.
production of egg-yolk substitutes, (P.), B., 1168.
- Rewald, B., and Schwieger, simple method of removing water in drying processes in the laboratory, A., 730.
- Rewald, B. See also Bollmann, H., and Reide, W.
- Rey, L. See Pascual, J.
- Reyohler, A., photochemical properties of silver bromide in presence of dilute aqueous solutions of gelatin or gum arabic, A., 716.
[action of] mercuric chloride on the [photographic] plate, A., 1385.
- Reyerson, L. H. See Smith, G. W.
- Reyevski, A., "adaptation" of colloids, A., 858.
- Reyher, P., vitamin-B content of cows' milk, B., 346.
- Reynard, O., obtaining from seaweed a stable form of alginic acid and its compounds, (P.), B., 1103*.
- Reynolds, D. A. See Davis, J. D.
- Reynolds, D. S., Jacob, K. D., and Hill, W. L., ratio of fluorine to phosphoric acid in phosphate rock, B., 102.
- Reynolds, D. S. See also Jacob, K. D.
- Reynolds, E. H., and Reynolds Bleacher Co., purifying food products, (P.), B., 347.
- Reynolds, N. B., and Benford, F., apparatus for the demonstration of the Raman effect in liquids, A., 1151.
- Reynolds, N. B., and Williams, J. W., molecular scattering of light from certain organic liquids, A., 1092.
- Reynolds Bleacher Co. See Reynolds, E. H.
- Režek, A. See Mikšić, J.
- Rhead, F. H., advances in the decorative arts as applied to ceramics, B., 1067.
- Rheinboldt, H., and Breuer, H., tanning of animal hides, (P.), B., 252.
- Rheinboldt, H., and Hessel, A., high-frequency field. I, A., 315.
- Rheinboldt, H., Hessel, A., and Schwenzer, K., selenium trioxide. II. Investigations in the high-frequency field, A., 1140.
- Rheinhold & Co. Vereinigte Kieselguhr- & Korkstein-Ges., air-layer heat and sound insulation, (P.), B., 40.
protective heat- and sound-insulating coverings, (P.), B., 169.
heat- and sound-insulating coverings, (P.), B., 193.
- Rheinische Kampfer-Fabrik G.m.b.H., preparation of thymol, (P.), B., 532, 940, 1017.
propylation of *o*- and *p*-cresols, (P.), B., 548.
preparation of thymol and its isomerides, (P.), B., 604.
manufacture of 1:8-cineole (eucalyptol), (P.), B., 1005.
- Rheinische Kampfer-Fabrik G.m.b.H., Skraup, S., and Steinruck, K., manufacture of aromatic azides, (P.), B., 364.
- Rheinische Kampfer-Fabrik G.m.b.H. See also Schöllkopf, K.
- Rheinische-Westfälische Kalkwerke, extracting magnesia from dolomite, (P.), B., 1027.
- Rheinisch-Westfälische Sprengstoff-Akt.-Ges. See Rathsburg, H.
- Rheinländer, P., temperature measurements in the [iron] blast furnace, B., 328.
- Rhenania-Kunheim Verein Chemischer Fabriken Akt.-Ges., separate recovery of sulphur dioxide and hydrochloric acid from gases, (P.), B., 283.
- Rhenania-Kunheim Verein Chemischer Fabriken Akt.-Ges., and Geisel, E., preparation of chemicals in a granular form, (P.), B., 459.
- Rhenania-Kunheim Verein Chemischer Fabriken Akt.-Ges., Rüsberg, F., and Klemm, F., recovery of the various acid constituents in the gases evolved in the manufacture of phosphates, (P.), B., 187.
- Rhenania-Kunheim Verein Chemischer Fabriken Akt.-Ges. See also Kali-Chemie A.-G.
- Rhenania Verein Chemischer Fabriken Akt.-Ges. See Brenek, H.
- Rheocrete Pumice Stone Slab Co., Ltd., and Whitaker, D., fireproof or soundproof floors or ceilings, (P.), B., 1067.
- Rhoades, W., apparatus for treating carbonaceous material, (P.), B., 597.
- Rhode, B., commercial preparation of phosphorescent substances, B., 659.
- Rhodes, C. W. See Highways Construction, Ltd.

- Rhodes, *F. H.*, chemical reagents; [inhibitors for iron-pickling baths], (P.), B., 1034.
- Rhodes, *F. H.*, and Gardner, *F. T.*, comparative efficiencies of the components of creosote oil as preservatives for timber, B., 375.
- Rhodes, *F. H.*, and Hosking, *H. J.*, separation of nickel and cobalt by means of hypochlorite, B., 667.
- Rhodes, *F. H.*, and Kuhn, *W. E.*, inhibitors in the action of acid on steel, B., 147.
- Rhodes, *F. H.*, and Wells, *J. H.*, plasticity of paint, B., 109.
- Rhodes, *F. H.* See also Fenhagen, *F. D.*
- Rhodesia Broken Hill Development Co., Ltd. See Stevens, *R. H.*
- Rhodin, *J. G. A.*, and British Metallising Co., Ltd., metallisation [with nickel] of electric non-conducting and inert base materials, (P.), B., 1159.
- Ribas, *L.*, and Tapia, *E.*, interaction of etherates of magnesium halides and ethylene oxides; magnesium bromide etherate and epichlorohydrin, A., 1403.
- Ribaud, *G.*, temperature of flames, and their content of atomic hydrogen, A., 418.
- current-temperature relations in tungsten pyrometric filaments, A., 1014.
- Ribéreau-Gayon, *J.*, rapid determination of iron in white wines, B., 212.
- Riblett, *E. W.* See Davies, *E. C. H.*
- Ricard, *A. E.*, and Daniel, *L.*, manufacture of anti-friction alloys, (P.), B., 333.
- Ricard, *E.*, Guinot, *H. M.*, and Société Anonyme des Distilleries des Deux-Sèvres, manufacture of furyl alcohol and methylfuran, (P.), B., 754.
- Ricard, *E.*, and Société Anonyme des Distilleries des Deux-Sèvres, increasing the output in extracting crystallised sugar from molasses and syrups, (P.), B., 1086*.
- Ricard, *E.*, and Société Ricard, Allenet & Cie, conversion of gaseous aliphatic ethylene hydrocarbons into liquid hydrocarbons, (P.), B., 276*.
- Ricard, *E.*, and United States Industrial Alcohol Co., manufacture of absolute alcohol, (P.), B., 261*.
- dehydration of impure ethyl alcohol, (P.), B., 787*, 963*.
- Ricard, *F.*, manufacture of silica gel and of calcium or sodium silicate, (P.), B., 188.
- Ricard, *H. L.*, treatment of wine residues, (P.), B., 528.
- Ricard, *P.* See Colin, *H.*
- Ricard, *R.* See Déjardin, *G.*
- Ricardo, *G.* See Hauschka, *R.*
- Ricci, *F.*, fasting gastric secretion, A., 1609.
- Ricci, *T.* See Cambi, *L.*
- Rice, *E. W.*, variations in the quality of raw sugars, B., 925.
- reactivation of charcoal, (P.), B., 1100.
- Rice, *F. E.*, evaporated and condensed milk from the chemical and nutritional point of view, B., 637.
- Rice, *F. O.*, and Urey, *H. C.*, temperature coefficient of reactions in solution, A., 300.
- Rice, *F. O.* See also Urey, *H. C.*
- Rice, *G. E.*, and Conservation Corporation of America, treatment of wood and fibres, (P.), B., 104.
- Rice, *G. P.*, structural isomerides of bromo- β -benzoylacrylic acid, A., 913.
- Rice, *G. S.*, and Greenwald, *H. P.*, coal-dust explosibility factors indicated by experimental mine investigations, 1911–1929, B., 800.
- Rice, *J. A.*, and Bubblestone Co., manufacture of porous [cementitious] products, (P.), B., 770.
- Rice, *O. K.*, quantum mechanics of chemical reactions: predissociation and unimolecular decompositions, A., 271.
- energy exchange within molecules and between molecules by collision, A., 657.
- perturbations in molecules and the theory of predissociation and diffuse spectra. II., A., 1077.
- quantum mechanical theory of radioactivity and the dissociation by rotation of diatomic molecules, A., 1087.
- Rice, *W. E.* See Kreisinger, *H.*
- Rich, *M. N.*, and Westinghouse Lamp Co., reduction of rare refractory-metal oxides, (P.), B., 239.
- Rich, *M. N.* See also Westinghouse Lamp Co.
- Richards, *A. N.*, simple instrument for micro-manipulations, A., 1326.
- Richards, *A. N.*, and Walker, *A. M.*, glomerular elimination of phenol-red and indigo-carmin in frogs, A., 1205.
- Richards, *A. N.* See also Freeman, *B.*
- Richards, *E. M.* See Richards, *L. S.*
- Richards, *G. B.* See Brown, *F. D.*
- Richards, *H. E. G.* See Unaphalt (Roads), Ltd.
- Richards, *L. S.*, Richards, *E. M.*, and Cremac Marketing Co., Ltd., apparatus for emulsification, (P.), B., 1135.
- Richards, *M. B.*, colorimetric determination of manganese in biological material, A., 1486.
- manganese in relation to nutrition, A., 1615.
- Richards, *R.*, silica refractories for coke ovens, B., 13.
- Richardson, *A. E. V.*, mineral content of pastures, A., 822.
- Richardson, *A. H.* See Morgan, *J. L. R.*
- Richardson, *C. H.*, and Shepard, *H. H.*, insecticidal action of some derivatives of pyridine and pyrrolidine and of some aliphatic amines, B., 834.
- effect of hydrogen-ion concentration on the toxicity of nicotine, pyridine, and methylpyrrolidine to mosquito larvae, B., 1124.
- Richardson, *E. G.*, two hot-wire viscosimeters, A., 56.
- Richardson, *F. W.*, determination of minute amounts of lead and copper in food, beverages, etc., B., 791.
- Richardson, *G. M.* See Cannan, *R. K.*
- Richardson, *H. B.*, Shorr, *E.*, and Loebel, *R. O.*, tissue metabolism. II. Respiratory quotient of normal and diabetic tissue, A., 807.
- Richardson, *H. B.* See also Shorr, *E.*
- Richardson, *H. H.*, petroleum oil summer sprays for pine-leaf scale control, B., 1124.
- Richardson, *H. K.*, automatically controlling acid effluents, B., 764.
- Richardson, *H. K.* See also Westinghouse Lamp Co.
- Richardson, *J. R.* See Fairhall, *L. T.*
- Richardson, *L. A.*, properties of organic hardpan soils with special reference to their formation, B., 831.
- Richardson, *O. W.*, new connexion between the absorption spectrum of hydrogen and the many-lined spectrum, A., 387.
- emission of secondary electrons and the excitation of soft X-rays, A., 1081.
- Richardson, *O. W.*, and Andrewes, (*Miss*) *U.*, excitation of soft X-rays from single-crystal surfaces and from polycrystalline surfaces of graphite and aluminium, A., 1077.
- Richardson, *O. W.*, and Rao, *S. R.*, excitation of soft X-rays from some polycrystalline metal surfaces, A., 1078.
- excitation of soft X-rays from a single-crystal face of nickel, A., 1078.
- Richardson, *W. D.*, greater efficiency in tunnel dryers, B., 144.
- Richarz, *J.* See Pfeiffer, *P.*, and Röhling, *A.*
- Richert, *P. H.*, effect of several factors on the solubility of tartrates, A., 989.
- volumetric determination of tartrates, A., 1163.
- Richet, *C.*, and Faguet, *M.*, action of irradiated sea-water on lactic fermentation, A., 820.
- Richfield Oil Co. See Black, *J. C.*, and Chappell, *M. L.*
- Richfield Oil Co. of California. See Frizell, *De R.*
- Richon, *L.*, Vigneul, *M.*, and Girard, *J.*, urea content of blood and cerebrospinal fluid, A., 366.
- Richter, *A. F.*, stability relationships of principal and subsidiary [electronic] configurations, A., 131.
- modifications of protoporphyrin and protohaemin, A., 1194.
- Richter, *C. M.*, synthesising and transmuting antirachitic substances, etc., and the products thereof, (P.), B., 302.
- Richter, *E.* See I. G. Farbenind. A.-G.
- Richter, *E. F.*, measurement of the life period of the visible mercury triplet, $2^3S_1-2^3P_{0,1,2}$, A., 1330.
- Richter, *F.*, and Wolff, *W.*, physical constants of *p*-cymene and certain related compounds, A., 1172.
- γ -terpinene. III., A., 1187.
- Richter, *F.* See also Remy, *E.*
- Richter, *G. A.*, and Brown Co., pulping of raw cellulosic material; production of sulphite pulp; production of cellulose pulp, (P.), B., 138.
- cyclic process of [cellulose] fibre liberation, (P.), B., 138.
- decolorisation of caustic liquors, (P.), B., 418.
- production of high- α -cellulose fibre for the manufacture of cellulose derivatives, (P.), B., 655.
- pulp-treating process, (P.), B., 759.
- production of high- α -cellulose fibre, (P.), B., 759.
- Richter, *G. A.*, Lovering, *E. W.*, and Brown Co., printing ink composition and its manufacture, (P.), B., 249.
- Richter, *G. A.*, Schur, *M. O.*, and Brown Co., preparation of raw material for cellulose derivatives, (P.), B., 184.
- Richter, *G. A.*, Schur, *M. O.*, Rasch, *R. H.*, and Brown Co., conditioning cellulose material for preparation of cellulose derivatives, (P.), B., 184.

- Richter, G. H. See Kirner, W. R.
 Richter, H. See Geffcken, H.
 Richter, K. See Hirsch, P.
 Richtmyer, F. K., secondary phenomena in X-ray spectra, A., 527.
 Richtmyer, F. K., and Taylor, L. S., intensity of X-ray satellites, A., 1491.
 Richtmyer, N. K. See Kohler, E. P.
 Richtmyer, N. W. See Freudenberg, K.
 Rickard, T. A., early use of the metals, B., 331.
 Rickles, D. N. See Schlesinger, H. I.
 Riels, S. J., and Douglas, C. E., mechanical filters, (P.), B., 126.
 Riddell, W., and Basterfield, S., antimony aryl compounds, A., 355.
 Riddick, J. A. See Popov, S.
 Riddle, F. H., and Royal, M. F., process control in continuous production [of ceramic products]; system of the Champion Porcelain Co., B., 240.
 Riddle, M. C., endogenous uric acid metabolism in pernicious anemia, A., 806.
 Rideal, E. K., chemical structure and infra-red analysis, A., 13.
 Rideal, E. K., catalytic reactions at high pressures, A., 867.
 Rideal, E. K., and Seiver, A., germicidal powers and capillary activities of certain pure constituents of essential oils, B., 1131.
 Rideal, E. K. See also Blackett, P. M. S., Lyons, C. G., Snow, C. P., and Wilkins, F. J.
 Rider, T. H., local anaesthetics derived from dialkylamino-propanediols. I. Phenylurethanes, A., 897, 1315.
 phenylurethane anaesthetics, A., 1031.
 synergism of local anaesthetics, A., 1471.
 Rider, T. H., and Hill, A. J., glycidol. I. Preparation from glycerol chlorohydrin. II. Reactions with secondary amines, A., 737.
 Ridge, B. P. See Birtwell, C.
 Ridge, H. McK., apparatus for subjecting a mass of powdered or granular material to the action of gases, particularly applicable to the calcining and roasting of ores and similar materials, (P.), B., 618*.
 Ridgway, C. See Norton, J. F.
 Ridgway, R. R., Glaze, J. B., and Norton Co., preparation of aluminous materials [corundum from bauxite], (P.), B., 665.
 Ridley, O. N., rosin size manufacture, B., 1079.
 Riebeck'sche Montanwerke Akt.-Ges., A., and Hellthaler, T., production of insulating oil from lignite oil and shale oil, (P.), B., 231.
 Riebeck'sche Montanwerke Akt.-Ges., A. See also Hellthaler, T., Metzger, J., and Zschoch, F.
 Rieber, G. See Gelsenkirchener Bergwerks A.-G.
 Riehl, R., inner properties of estate rubber from Java and South Sumatra, B., 781.
 Riehl, R. See also De Vries, O.
 Rieche, A., and Hitz, F., alkyl peroxides. V. Barium methyl peroxide. VI. Monohydroxydialkyl peroxides, A., 1554.
 Riechemeier, O. See Senftleben, H.
 Riecker, H. H., and Winters, M. E., serum-iron in experimental anemia, A., 634.
 iron metabolism in pernicious and in secondary anemia, A., 1468.
 Ried, O., action of irradiated substances, A., 718.
 Riede, W., and Rewald, B., the soya-bean question [and agriculture], B., 1124.
 Riedel, L., and Zschimmer, E., dependence of transparency of copper ruby glass on annealing time and temperature and the concentration of copper, B., 509.
 Riedel, W. See Lottermoser, A., and Lüers, H.
 Riedel Akt.-Ges., J. D., production of hydrogen peroxide, (P.), B., 189.
 materials with fungicidal and insecticidal properties, (P.), B., 298.
 Riedel-E. de Haën, Akt.-Ges., J. D., manufacture of aromatic [hydroxy]aldehydes, (P.), B., 1059.
 Rieder, J., production of etched and precipitated designs [on metals] by electrolysis, (P.), B., 202.
 Rieder, R., velocity of the iodate-thiosulphate reaction, A., 1378.
 Riedeger, O. See Franke, O.
 Riedl, R. See Landa, S.
 Riedrich, G. See Maurer, Ed.
 Riefkohl, A. See Müller, Friedrich.
 Rieger, W. F., and Stoker Matic Corporation, [water-cooled] retort, (P.), B., 1134.
 Riehl, N., and Käding, H., partition law in the fractional crystallisation of radium salts, A., 1246.
 Riehm, H., systematic investigation of the reaction of diphenylbenzidine in sulphuric acid with nitric acid in the presence of chlorides; comparison with the diphenylamine reaction, A., 1542.
 reaction of diphenylamine-sulphuric acid with nitrates in the presence of chlorides, with especial reference to its use in the determination of nitrates in arable soil, B., 1149.
 Rieke, E. F. See Kemble, E. C.
 Rieke, R., and Schade, W., determination of the mullite content of porcelains by chemical means and the relation between such mullite content and the properties of the porcelain, B., 1152.
 Rienäcker, G. See Jackson, K. S., and Zintl, E.
 Rientsma, L. M. See Katz, J. R.
 Ries, K. See Hieber, W.
 Ries, P., and Bicheroux, F., dephosphorisation of iron, (P.), B., 669.
 Riese, W. See Glud, W.
 Riesen, W. See Asher, L.
 Riesenfeld, E. H., and Hamburger, T., measurement of the transparency to light of printing papers, B., 236.
 determination of moisture in paper, B., 609.
 Riesenfeld, E. H., and Wassmuth, E., mechanism of combustion in the oxygen-hydrogen flame, A., 1126.
 thermal and photochemical decomposition of ozone, A., 1135.
 Riesenfeld, E. H. See also Deuts. Petroleum A.-G.
 Riess, C., sulphonated oils, B., 568.
 Riess, C. See also Schad, E.
 Riesser, O., and Schneider, W., amount of work and acid production of muscle. I., A., 108.
 Riesz, E., organic sulphur-nitrogen linking, A., 1573.
 Riesz, E., and Feiks, R., action of aromatic sulphonyl chlorides on β -aminoanthraquinone; new vat dyes, A., 215.
 Riesz, E. See also Blumenstock-Halward, E., and Gebauer-Fülnegg, E.
 Rietti, C. T., composition and food value of carob-bean meal and "patay," B., 927.
 Riezler, W. See Rinne, F.
 Rifé, A., and Medrano, L., determination of caramel formed during the roasting of ground coffee, B., 215.
 Rigg, T. See Easterfield, T. H.
 Righellato, E. C., and Davies, C. W., extent of dissociation of salts in water. II. Uni-bivalent salts, A., 1371.
 Rigler, R., and Tiemann, F., heart hormone; action of active substances, A., 378.
 Rigotard, L., rôle of sulphur in the formation of arable land, B., 253.
 Riising, B. M. See Steenbock, H.
 Riley, C. H. See Riley's Chemicals & Colours, Ltd.
 Riley, H. L., complex salts. III. Effect of alkyl substitution on the stability of the dimalonatocuprate ion, A., 1120.
 Riley, H. L. See also Hume, W. F.
 Riley, R. See Imperial Chem. Industries, Ltd.
 Riley, R. S., Craig, O., and Riley Stoker Corporation, pulverising apparatus, (P.), B., 645*.
 Riley, W. A. See Babcock & Wilcox, Ltd.
 Riley & Sons, Ltd., J., Wilde, W., Coates, W. M., and Bentley, W. H., purification (de-arsenification) of sulphuric acid, (P.), B., 322.
 Riley Stoker Corporation. See Andrews, L. V., Craig, O., Daniels, F. H., and Riley, R. S.
 Riley's Chemicals & Colours, Ltd., and Riley, C. H., manufacture of "satin white," (P.), B., 780.
 Rimattei, F., optical analysis of some colloidal silver solutions and discussion of the results obtained, A., 1248.
 Rimmington, C., the sulphur linking in wool, A., 363.
 colorimetric determination of cystine by means of the uric acid reagent, A., 1420.
 determination of sulphur in wool and similar materials, B., 607.
 determination of "soundness" in wool and cloth, B., 1021.
 Rimmington, C. See also Burgess, R.
 Rinek, A., and Kaempf, E., determination of sulphur in spent [coal] gas-purification material, B., 129.
 formulae for the direct calculation of the sucrose and lactose content of milk chocolate, B., 739.
 caffeine content of natural and treated coffee, B., 790.
 Rinck, E., equilibrium in the molten state between potassium, sodium, and their iodides, A., 163.

- Rineck, *E.*, equilibrium in the molten state between potassium, sodium, and their fluorides, A., 701.
 equilibrium in the molten state between calcium, sodium, and their chlorides, A., 1252.
- Rinehart, *W. G.* See Miller, *L. B.*
- Ringbom, *A.* See Günther, *P.*
- Ringold, *K.* See Gartenmann, *C.*
- Ringrose, *H. T.*, apparatus for indicating presence of inflammable vapours or gases, (P.), B., 978.
- Rinkel, *R.*, determination of C_p/C_v , A., 143.
- Rinkenbach, *W. H.*, heats of combustion and formation of aromatic nitro-compounds, A., 420.
- Rinkes, *I. J.*, bixin. VI., A., 92.
 by-product from action of sulphuric acid on *m*-nitro-*p*-cresol, A., 1593.
- Rinman, *E. L.*, production of [distillation] products from vegetable substances, (P.), B., 1138.
 alkalisng the waste liquors from the soda- or sulphate-pulp manufacture for the purpose of dry-distilling the same, (P.), B., 1150.
- Rinne, *F.*, morphological and physico-chemical investigations on synthetic spinels as examples of substances not of stoichiometric composition, A., 1137.
 sperms as living liquid crystals, A., 1242.
- Rinne, *F.*, and Riezler, *W.*, variation of the plasticity of rock-salt, silver bromide, and silver iodide with temperature, A., 1243.
- Rinne, *L.*, nitrogen manuring of low-moor soils, B., 73.
- Ripan, *R.*, formation of double amines in aqueous solution. I. Cyanates and hexamethylenetetramine, A., 1141.
- Ripert, *J.*, fluorescence phenomena and their application to investigating adulteration in cacao butter, B., 79.
- Ripley, *L. B.*, and Hepburn, *G. A.*, control of the stalk borer in maize, B., 1001.
 fruit-fly control, B., 1042.
- Ripley, *P. C.*, rosin-core solder, (P.), P., B., 514.
- Ripley, *P. O.*, effect of soil type on the availability of finely-ground rock phosphate, B., 922.
- Ripley, *R. R.*, and Schwarz, *S. C.*, recovery of gas tars from their emulsions with water, (P.), B., 547*.
- Rippel, *A.*, and Meyer, *R.*, the yield law [of crops] and the "effect law," B., 269.
- Ripper, *K.*, moulding compositions and (A) plastic materials or (B) artificial masses, (P.), B., 204.
- Ripper, *K.*, and Kunstharzfabrik *F. Pollak Ges.m.b.H.*, manufacture of porous, homogeneous, cloudy, artificial compositions, (P.), B., 1121*.
- Ripper, *K.*, and Pollak, *F.*, manufacture of film-forming solutions [from urea, or its derivatives, and formaldehyde], (P.), B., 26*.
 manufacture of condensation products of urea and aldehyde, (P.) B., 727*.
- Rippey, *H. F.*, Davidson, *G.*, Cone, *C. N.*, Laucks, *I. F.*, and Banks, *H. P.*, carbonaceous briquette and its manufacture, (P.), B., 132.
- Riquelme, *M.*, evaluation of textile impregnating agents, B., 986.
- Ris, *K. B.* See Griscom-Russell Co.
- Rising, *M. M.*, and Braun, *G.*, salts of nitriles. III. Sodiophenylacetoneitrile, A., 772.
- Rising, *M. M.*, and Lowe, *E. W.*, salts of nitriles. IV. Sodio-phenylbutyronitrile, A., 1037.
- Rising, *W. H.*, and Corning Glass Works, production of heat-absorbing glasses and batches therefor, (P.), B., 145*, 327*.
- Rising, *W. H.* See also Corning Glass Works.
- Risler, *J.*, and Risler Corporation of America, electric lamp, (P.), B., 775.
- Risler Corporation of America. See Risler, *J.*
- Risse, *O.*, mechanism of the chemical action of X-rays in aqueous solutions, A., 1261.
- Risseghem, (*Mlle.*) *H. van*, attempted preparation of geometrical isomerides of *n*- Δ^8 -hexene by means of crotyl bromide, A., 1399.
 γ -methylheptane, A., 1399.
- Rissom, *J.* See Curtius, *T.*
- Ritchie, *A. D.*, acid-base equilibrium in frog's muscle, A., 108.
- Ritchie, *C. F.*, Gale, *W. A.*, and American Potash & Chemical Corporation, refining of crude borax, (P.), B., 324.
- Ritchie, *C. F.* See also Gale, *W. A.*
- Ritchie, *E. G.*, steam storage in relation to the peak-load problem in industrial steam plants, B., 351.
- Ritchie, *M.*, density and compressibility of phosphine gas; atomic weight of phosphorus, A., 1104.
- Ritlop, *B.*, effect of insulin on the biological oxidation of carbohydrates and on the energy exchanges in animals receiving carbohydrates, A., 820.
- Ritschel, *O.*, marble tube-filter for use in water-supply systems, for fixing free active carbon dioxide, (P.), B., 266.
- Ritschl, *R.* See White, *H. E.*
- Ritter, *E.* See Froehlich, *W.*
- Ritter, *F. O.* See Ritter, *J. J.*
- Ritter, *G.* See Kuss, *F.*
- Ritter, *H.* See Gen. Aniline Works, Inc.
- Ritter, *J. J.*, and Ritter, *F. O.*, acyldiarylhydrazine series. I., A., 1175.
- Ritter, *J. J.*, and Wiedeman, *G. M.*, pyrochemical decomposition of azibenzil, A., 214.
- Ritter, *O.* See Vorländer, *D.*
- Ritter, *R. C.* See Krueger, *A. P.*
- Ritter, *R. M.*, mothproofing composition, (P.), B., 458.
 rendering fibres insectproof [mothproofing], (P.), B., 944.
- Rittor, *W.* See Curtius, *T.*
- Ritter Dental Manufacturing Co., Inc. See Strauchen, *D. M.*
- Rittershofer, *A.*, preparation of a stable hydrogen peroxide solution containing formaldehyde, (P.), B., 282.
- Ritzenthaler, *W.*, leather colour, (P.), B., 473.
- Rlus y Miró, *A.*, analytical applications of oxidation and reduction potentials, A., 50.
 potential and catalytic activity of a platinum surface, A., 714.
- Rivat, *G.*, Cadgène, *E.*, Dreyfus, *C.*, and Celanese Corporation of America, dyeing of cellulose derivatives, (P.), B., 1149*.
- Rivkin, *H.* See Hess, *A. F.*, and Mayers, *M. R.*
- Rivollier, *P. M.*, and Navarre, *P. O. I.*, manufacture of sparkling wine, (P.), B., 212.
- Rjabinin, *G.* See Trifonov, *A.*
- Roach, *W. A.* [with Hobson, *R. P.*], sulphur as a soil fungicide against the potato wart disease organism, B., 632.
- Roark, *R. C.*, pyrothrum and soap, a chemically incompatible mixture, B., 736.
- Roark, *R. C.*, and Cetton, *R. T.*, tests of various aliphatic compounds as fumigants, B., 634.
- Robb, *R. E.*, determination of moisture in aggregate [by unskilled persons], (P.), B., 745.
- Robbins, *B. H.*, proteolytic enzyme in ficin, the anthelmintic principle of leche de ligueron, A., 1066.
- Robbins, *D.* See Ginnings, *P. M.*
- Robert, *J.* See Cuny, *L.*
- Robert, *J. P.*, preparation of open-hearth steel, (P.), B., 149.
- Roberts, *D. I.*, and Bowden, *S. T.*, reduction of triphenylcarbinols, A., 1036.
- Roberts, *E.*, and Western States Machinery Co., centrifugal baskets, (P.), B., 932.
- Roberts, *E. G.* See Anderson, *R. J.*
- Roberts, *E. G. L.* See E. M. S. Industrial Processes, Ltd.
- Roberts, *E. J.*, ionisation constant of water at 25° from the *E.M.F.* of cells without liquid junction, A., 1525.
- Roberts, *E. N.*, and Terry, (*Miss*) *E. M.*, velocity of hydrolysis of ethyl formate by ammonia solution in presence of ammonium salts, A., 1128.
- Roberts, *F. G.* See Baker, *W. E. B.*
- Roberts, *G. P.*, and Roberts, *G. R.*, treatment of textile materials in roll form with liquids, (P.), B., 11.
- Roberts, *G. R.* See Roberts, *G. P.*
- Roberts, *H. S.*, and Morey, *G. W.*, micro-furnace for temperatures above 1000°, A., 1549.
- Roberts, *J.* See Henderson, *A.*
- Roberts, *J. E.*, critical potentials of the hydrogen molecule, A., 1492.
- Roberts, *J. E.*, and Whiddington, *R.*, electron impacts in argon, A., 1492.
- Roberts, *J. K.*, exchange of energy between gas atoms and solid surfaces, A., 1340.
- Roberts, *J. K.* See also Stauffer, *J. C.*
- Roberts, *O. C.*, treatment of iron arsenate, (P.), B., 188.
- Roberts, *R. P.* See Brit. Celanese, Ltd.
- Roberts, *R. W.*, paramagnetic rotary dispersion of aqueous solutions of cobalt sulphate in the visible and ultra-violet regions of the spectrum, A., 668.
- Roberts, *T. J.* See Brown, *F. D.*
- Roberts, *W. van B.* See Marconi's Wireless Telegraph Co., Ltd.
- Roberts, *W. M.*, variations in the phosphatase activity of the blood in disease, A., 1207.
- Roberts & Co., *T.* See Haehre, *E.*

- Robertshaw, G. F. See Burton, D.
- Robertson, A., synthesis of glucosides. IV. Alizarin glucoside, A., 895.
- Robertson, A., and Stephenson, R. J., lichen acids. I. Derivatives of β -orcinol, A., 472.
- Robertson, A., and Taylor (Trongate), Ltd., J., treatment of extract of cascara sagrada, (P.), B., 1131.
- Robertson, A. See also Boyce, E. G., Johnson, Francis R., Jones, E. T., and Rule, H. G.
- Robertson, C. M. See Butler, J. A. V.
- Robertson, H. M., [tunnel] kiln, (P.), B., 222, 645, 906*, 1051. annealing, (P.), B., 331. heat-treating furnaces, (P.), B., 536. [continuous-type tunnel] kilns, (P.), B., 664, 665, 906. kiln or retort for continuous working, (P.), B., 689. treating solid hydrocarbon-containing material, (P.), B., 851. [continuous-type tunnel ceramic] kilns, (P.), B., 863.
- Robertson, J. D. See Dodds, E. C.
- Robertson, J. H., manufacture of compound glass, (P.), B., 13.
- Robertson, J. M., structure of naphthalene and anthracene, A., 528. effect of rate of cooling on the structure and constitution of steel, B., 865.
- Robertson, J. R., and Vielle, J., mercury-vapour lamp, (P.), B., 335.
- Robertson, J. R. See also Carrier Engineering Co., Ltd.
- Robertson, K. J. R., Fowler, A., and Carrier Engineering Co., Ltd., drying oven, (P.), B., 171*.
- Robertson, K. J. R. See also Carrier Engineering Co., Ltd.
- Robertson, (Miss) M. E. See Lloyd, (Miss) D. J.
- Robertson, P. W., determination of organic halogen, A., 1303.
- Robertson, P. W. See also Dolby, R. M.
- Robertson, (Sir) R., infra-red spectra of gases, A., 12.
- Robertson, (Sir) R., and Fox, J. J., infra-red spectrum of diamond by infra-red spectrometer and Raman methods, A., 662. Raman spectrum of diamond, A., 1237.
- Robertson, T. B., and Dawbarn, M. C., influence of age of animal on nucleic acid and coagulable nitrogen content of tissues of sheep, A., 369.
- Robey, L. See Branham, S. E.
- Robie, N. P. See Carborandum Co., Ltd.
- Robin, J., α -migration of the [aryl]amino-group in the aryl-amino-derivatives of diarylarylethynylcarbinols; constitution of the compounds obtained, A., 1571.
- Robinius, J., road surface and its preparation, (P.), B., 1031.
- Robinson, A. See Ramsey, J. B.
- Robinson, A. E., viscosimeters, (P.), B., 746.
- Robinson, A. L. See Lange, E.
- Robinson, C. S. See Huffman, C. F.
- Robinson, E. Y., and Associated Electrical Industries, Ltd., thermionic cathodes, (P.), B., 776. vacuum electric tube devices, (P.), B., 996.
- Robinson, G. H., apparatus for mixing air and pulverised coal applicable to other similar operations, (P.), B., 804. grinding or crushing mills, (P.), B., 886. apparatus for burning pulverised fuel, (P.), B., 938.
- Robinson, (Mrs.) G. M., attempts to find new anti-malarials. I. Some pyroloquinoline derivatives, A., 224. synthesis of certain higher aliphatic compounds. III. Variation of keto-acid synthesis; improved method for the extension of normal carbon chains, A., 742.
- Robinson, G. W., and McLean, W., occurrence of elementary carbon in soils, B., 875.
- Robinson, H. R., and Young, C. L., influence of chemical state on critical X-ray absorption frequencies, A., 1078. magnetic spectroscopy of X-ray electrons, A., 1081.
- Robinson, H. W. See Parkes, D. W.
- Robinson, J., electric vaporisers [for medical purposes], (P.), B., 218.
- Robinson, J. D. See Gilman, H.
- Robinson, M. E. See Adair, G. S.
- Robinson, P., rule for the mechanism of reactions, A., 296.
- Robinson, P. L. See Pearson, T. G., and Peel, J. B.
- Robinson, P. L. L., and Scott, W. E., Chancel's method for the separation of iron and aluminium, A., 183.
- Robinson, R., and Schwarzenbach, G., anthoxanthins. XII. Transition from a flavylum salt to a flavone, illustrated by a new synthesis of scutellarein tetramethyl ether, A., 785.
- Robinson, R. See also Achmatowicz, O., Ashley, J. N., Barger, G., Barrett, H. S. B., Bradley, W., Gulland, J. N., Lovecy, A., Menon, K. N., and Pollard, A.
- Robinson, R. A., primary neutral salt effect in the catalytic hydrolysis of ethyl acetate, A., 713.
- Robinson, R. A. See also Britton, H. T. S., and Carter, S. R.
- Robinson, R. H., new solvents for removal of arsenical spray residue, B., 29.
- Robinson, R. H. O. B., blood-cholesterol in cholelithiasis, A., 106.
- Robinson, R. S. See Gard, J. F. S.
- Robinson, S. J. L., and Collis, W. T., manufacture of roads, paths, etc., (P.), B., 614.
- Robinson, T. W. S., and De Ganahl, C., treatment of hydrocarbon material, (P.), B., 179.
- Robinson, W. O., chemical phases of submerged soil conditions, B., 1082.
- Robison, R., and Morgan, W. T. J., phosphoric esters of alcoholic fermentation, A., 374.
- Robson, S., preparation of ammonium sulphate, (P.), B., 189*.
- Robson, S., and Lewis, P. S., vanadium catalysts for use in the oxidation of oxidisable gases [sulphur dioxide], (P.), B., 1065.
- Rocca, A., covering surfaces of metal pipes with a mixture of fibrous and cement substances, or forming pipes of such a mixture, (P.), B., 20.
- Rocha, H. J., fractional precipitation of acetone-soluble cellulose acetate, B., 367.
- Roche, A. See Henriques, V.
- Roche, J., differences in the C:N quotient in rat's urine in inanition and lack of vitamin-B, A., 119. urinary syndrome of metabolic disturbances caused by lack of vitamin-B in the rat, A., 822. acid-soluble phosphorus of the blood. I. Elementary composition of filtrates of deproteinised blood and fractionation of the compounds containing phosphorus. II. Participation of compounds containing phosphorus in the reducing power of the blood, A., 1054.
- Roche, J. N. See Averill, H. P.
- Rochow, T. G., oiling of leather, B., 71.
- Rochrich, C., photographic sensitising, (P.), B., 588.
- Rochussen, F., preparation of fatty acids from their higher homologues, A., 739.
- Rochwarger, F. See Glassmann, B.
- Rockbestos Products Corporation, and Anderson, H. O., [multi-layer] insulated [and fireproof electrical] conductors, (P.), B., 108.
- Rockwood, R., and Dodge, E. F., differentiation of the reducing substances in the urine during pregnancy, A., 242.
- Rodd, E. H. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Ind. Ltd.
- Rode, E. J., rhodium-bismuth alloys, A., 148.
- Rodebush, W. H., vapour density of sodium, A., 283.
- Rodebush, W. H., and Henry, W. F., vapour pressure of sodium; low-pressure measurements with the absolute manometer, A., 1244.
- Rodebush, W. H., and Nichols, W. A., jun., attempt to determine nuclear moments, A., 1093. molecular ray experiments; chemical activity of molecular and atomic oxygen, A., 1494.
- Rodebush, W. H., and Troxel, S. M., heat of formation of molecular oxygen, A., 1252.
- Rodebush, W. H., and Walters, E. G., vapour pressure and vapour density of sodium, A., 1104.
- Rodillon, G., determination of dextrose in blood, A., 236.
- Rodionov, W. M., and Fedorova, A. M., synthesis of dimethoxy-phthalimidineacetic acid, A., 341.
- Rodionov, W. M., and Korolev, A. I., condensation of hippuric acid with aldehydes; test for aldehydes, A., 194.
- Rodman, C. J. See Westinghouse Electric & Manuf. Co.
- Rodolfo, E., recovering salts from the waste water of artificial silk factories, (P.), B., 858.
- Rodrian, R., winning of metals from metal-bearing materials, (P.), B., 18.
- Rodrian, H. See also Zschoch, F.
- Rodriguez Mourelle, J., reversible phototropic phenomena, A., 1346.
- Rodt, V., formation of the yellow hydrated iron oxide from iron sulphides, A., 723.
- Roeberson, H. G., decomposition of $\text{CaCO}_3 \cdot 6\text{H}_2\text{O}$ to anhydrous CaCO_3 , A., 39.
- Roed, R., apparatus for continuous production of liver oil, etc., with simultaneous removal of solid matter, (P.), B., 203.
- Roeder, F., electrolyte content and chemical composition of frog nerve and the changes produced by stimulation, A., 637.
- Rödiger, W. See Ostwald, Wolfgang.

- Röhling, A., and Richarz, J., detection of fruit wines in grape wine by means of the sorbitol method, B., 261.
- Röhm, O., treatment of hides, (P.), B., 71*.
- emulsion [for tanning purposes], (P.), B., 434*.
- Roehm, R. R. See Williams, Roger J.
- Röhm & Haas Akt.-Ges., manufacture of detergents, (P.), B., 155.
- preparation of unsaturated esters, (P.), B., 361, 1143.
- preparation of [polymerisation] products of acrylic acid or its derivatives, (P.), B., 452.
- manufacture of [gold-beryllium] alloys, particularly for production of sheets, membranes, etc., permeable to cathode, Röntgen, and similar rays, (P.), B., 721.
- manufacture [synthesis] of hydrogen chloride or hydrogen bromide or their corresponding acid solutions, (P.), B., 764.
- manufacture of adhesives, (P.), B., 1082.
- Röhm & Haas Akt.-Ges., and Herzog, R. O., manufacture of artificial silk, (P.), B., 985.
- Röhm & Haas Co., insecticides, (P.), B., 968.
- Röhm & Haas Co. See also Le Petit, C. J. M. M., and Thompson, A. R., jun.
- Röhre, K. See I. G. Farbenind. A.-G.
- Roehrich, C., treatment of exposed chromate-colloidal photographic layers, (P.), B., 121.
- manufacture of monochromatic photographic pictures, (P.), B., 1092.
- Roehrig, P. See Terroine, E. F.
- Röhrmann, A., production of dull-decoration paints ready for painting, (P.), B., 827.
- Roelen, O., temperature control of exothermic gas reactions, B., 352.
- Roelens, E. See Bordas, F.
- Roell, L. F. See Speyer, E.
- Römer, E. See Abel, E.
- Römer, G. H. See Hertel, E.
- Roemer, T., distribution of assimilable phosphorus and potash in arable soils, B., 579.
- Römersperger, H. See Wilke-Dörfurt, E.
- Römhild, E. See Loewe-Radio Ges.m.b.H.
- Roennfeldt, A. J. See Greenwood, J. N.
- Roer, O., titration of cyanides, A., 52.
- Rördam, H. N. K., Walden inversion. III., A., 1407.
- Rösch, H., ammonia formation in the retina, A., 494.
- Roese, H. F. See Bornstein, A.
- Rösler, K. See Deutsch, W.
- Roessler, G. See Frankenburger, W.
- Rössler, H., sugar-beet trials with various nitrogen fertilisers in 1928, B., 161.
- Roessler & Hasslacher Chemical Co., production of [sodium] perborate, (P.), B., 58*.
- Roessler & Hasslacher Chemical Co., and Gilbert, H. N., manufacture of carbon electrodes, etc., (P.), B., 1139.
- Roessler & Hasslacher Chemical Co. See also Cambron, A., Lehrecke, H., Storch, H. H., and Zisch, W.
- Röst-Grande, E. H. A. See I. G. Farbenind. A.-G.
- Röth, K., hardness of binary alloys rich in aluminium in relation to their composition, A., 1360.
- Röth, K. See also Tammann, G.
- Roffey, F. See Imperial Chem. Industries, Ltd.
- Roffo, A. H., and Correa, L. M., decomposition of cholesterol *in vitro* by X-rays, A., 434.
- Roffo, A. H., and Degiorgi, H., modification *in vitro* of blood-cholesterol, A., 102.
- Roga, B. See Swientoslawski, W.
- Rogatkin, N. N., Ukhov, L. P., and Joffe, D. G., coking coal mixed with iron minerals, B., 890.
- Roger, R., stereochemical structure. I. Optically active glycols derived from *d*(-)-mandelic acid, A., 211.
- Rogers, A. F., unique occurrence of lechatelierite, or silica glass, A., 570.
- Rogers, E. See Werder, J. F.
- Rogers, F. See Pickard, J. A.
- Rogers, H. E. See Smyth, C. P.
- Rogers, L. J., nomogram for calculating calorific value of gases, B., 890.
- Rogers, M. C., and Brown, G. G., Raoult's law and the equilibrium vaporisation of hydrocarbon mixtures, B., 544.
- Rogers, M. N., helium and the genesis of petroleum, A., 887.
- Rogers, M. N. See also Grigg, F. J. T.
- Rogers, R. A. See Carnochan, R. K.
- Roginski, S., and Rosenkevitch, L., quantum theory of the kinetics of homogeneous and heterogeneous reactions, A., 546.
- quantum theory of kinetics of chemical reactions; unimolecular reactions, A., 1377.
- Roginski, S., and Schulz, E., catalytic decomposition of potassium chlorate by dust (smoke) particles of manganese dioxide, A., 1003.
- Rognon, J. A., manufacture of fluxes [for low-temperature welding], (P.), B., 773.
- material [flux] for low-temperature soldering of metals, (P.), B., 868*.
- Rogorin, M., and Rogstone Chemical Research Inc., deodorisation of animal and vegetable oils [fish oils], (P.), B., 248.
- Rogowski, W., electrical breakdown of gases, A., 513.
- Rogozinski, F., and Starzewska, M., experimental rickets. I. Influence of ultra-violet rays on mineral metabolism and composition of bone, A., 1469.
- Rogstone Chemical Research Inc. See also Rogorin, M.
- Rohdewald, M. See Willstätter, R.
- Rohm & Haas Co. See Röhm & Haas Co.
- Rohmann, A. See Tammann, G.
- Rohmann, H. See Elektr. Gasreinigungs-Ges.m.b.H.
- Rohn, W., nickel-chromium-iron alloy and articles made therefrom, (P.), B., 150.
- Rohn, W. See also Heraeus Vacuum-schmelze A.-G.
- Rohrbach, A. See Wassermeyer, H.
- Rohrman, F. A., and Taylor, N. W., preparation of large crystals of chrome alum, and explanation of corrosion figures, A., 178.
- Rohrman, F. A. See also Fink, C. G.
- Rohrmann, W. See Skita, A.
- Roiter, V. A., influence of the removal from catalytic agents (through pressure reduction) of adsorbed gases on the rate of catalysis of hydrogen peroxide, A., 1531.
- Roitzeim, A., and Remy, W., furnace for treating zinc ores and other zinciferous material, (P.), B., 565*.
- Rojahn, C. A., and Fegeler, H., *act*-form of 5-hydroxy-1-*m*-dinitrophenyl-3-methylpyrazolo and its amino- and thio-analogues, A., 1596.
- Rojahn, C. A., Greiss, M., and Link, A., pharmaceutical specialities and secret remedies. VII. Identification of pharmaceutical and technical solvents, B., 684.
- Rojahn, C. A., and Seifert, R., colorimetric determination of alkaloids, A., 1605.
- Rojansky, V., interaction of Stark effect and electron spin in alkali atoms, A., 650.
- Rojansky, V. See also Podolsky, B.
- Rokitansky, K. See Holz, F.
- Rol Lister & Cie, [cold] bituminous paving, (P.), B., 511.
- Roldán, J. C., hydroxylamine as a precipitation agent, A., 1547.
- Rolinski, J. See Wolke, M.
- Roll, F., effect of alloying elements on the iron carbide in cast iron, B., 560.
- Rollefson, G. K., sensitised photosynthesis of carbon dioxide at low chlorine pressures, A., 1383.
- Rollefson, G. K., and Lindquist, F. E., effect of iodine chloride on photosynthesis of hydrochloric acid, A., 1135.
- Rollefson, G. K. See also Christensen, C. J., and Lenher, S.
- Rollefson, R., possible origin of the band at 2540 in the spectrum of mercury vapour, A., 970.
- Roller, D., photo-electric behaviour of solid and liquid mercury, A., 1335.
- Roller, P. E., application of the quinhydrone electrode to solutions of phenols and cresols, A., 422.
- Rollet, A. P., reactions occurring at the electrodes in electrolysis, and some metallic compounds produced, A., 431.
- silver borate, A., 1386.
- Rollett, A. [with Schneider, O.], resins and resin substances. VII. Tolu balsam, B., 623.
- Rollet, A. P., and Andrés, L., caesium borates, A., 1261.
- alkali pentaborates, A., 1386.
- Rollmann, M. See Behaghel, O.
- Rolls Royce, Ltd. See Hall, H. C.
- Rolnick, H., tension coefficient of resistance of metals, A., 1354.
- Roman, W., determination of choline and some physicochemical data of choline and its salts, A., 752.
- Roman, W. See also Pincussen, L.
- Romane, G., manufacture of imitation fur products, (P.), B., 320.
- [apparatus for] manufacture of imitation fur, etc., (P.), B., 457.
- imitation fur, (P.), B., 944.

- Romanoff, *A. L.*, shaking machine for analytical work, *A.*, 884.
 Romanoff, *V. L.*, attraction phenomena of mercury in a high vacuum, *A.*, 129.
 Rombacher Hüttenwerke, and Bronn, *J. L.*, preparation of mixtures of compressed gases, (P.), *B.*, 270.
 Romburgh, *P. van*, Δ^8 -decenaldehyde, the principal constituent of essential oil of *Achasma walang* val, *B.*, 302.
 Romburgh, *P. van*, and Huyser, *H. W.*, formation of derivatives of dihydrobenziminazole and tetrahydroquinoxaline by the action of acetic anhydride and zinc chloride on nitro-derivatives of alkylanilines, *A.*, 481.
 Romburgh, *P. van*, Veen, *A. G. van*, and Smit, *A. J. H.*, Minjak pelandjau, the exudation from the wood of *Pentaspadon molleyi*, Hook f. II., *A.*, 1434.
 Romeo, *G.*, volumetric determination of citric acid in calcium citrate, *B.*, 710.
 Romeo, *G.*, and Sciaee, *N.*, method of analysis of calcium citrate to replace the official method, *B.*, 459.
 Romieux, *C. J.* See Novotny, *E. E.*
 Romieux, *C. T.*, Wohnsiedler, *H. P.*, and American Cyanamid Co., manufacture of dithiophosphates, (P.), *B.*, 1064.
 Romieux, *J.*, carbonates in the sediments of the Lake of Geneva, *A.*, 1155.
 Romoli-Venturi, *D.*, chemical nature of the light hydrocarbons recovered by compressing cracking gases and their industrial utilisation, *B.*, 357.
 Romón, *J. V.*, potentiometric study of the reaction between sodium ferrocyanide and nitrite, *A.*, 1542.
 Rompe, *R.*, analysis of the S_2 spectrum, *A.*, 1488.
 Romwalter, *A.*, alteration of cast-iron [water-pipes by corrosion] in the earth of a town, *B.*, 329.
 Rona, *A.*, and Waldbauer, *O.*, menstrual blood, *A.*, 490.
 Rona, *P.*, and Ammon, *R.*, asymmetric esterification caused by the esterase of pig pancreas, *A.*, 373.
 Rona, *P.*, Ammon, *R.*, and Werner, *M.*, stereochemical specificity of taka-esterases, *A.*, 373.
 asymmetric esterification and hydrolysis caused by the esterases of the pancreas and liver of the pig, *A.*, 1065.
 Rona, *P.*, and Fabisch, *W.*, blood-sugar; so-called protein-sugar in blood, *A.*, 360.
 Rona, *P.*, and Heffer, *J.*, combined effect of salivary, pancreatic, and malt amylases on starch, *A.*, 372.
 Rona, *P.*, and Marsson, *T.*, stereochemical specificity and homogeneity of erepsin, *A.*, 1475.
 Rona, *P.*, and Mühlbock, *O.*, enzymic synthesis of esters, *A.*, 1216.
 Rona, *P.*, and Oelkers, *H. A.*, enzymic proteolysis. V., *A.*, 374.
 Rona, *P.*, Parfentjev, *J. A.*, and Lippmann, *H.*, oxidative catalysts of insects, *A.*, 1202.
 Rondier, *L.* See Sanfourche, *A.*
 Rondini, *P.*, chemistry of cancer, *A.*, 948.
 effects of a hyperprotein and hyperpurine diet (pancreas) on the rat, *A.*, 1060.
 Rony, *H. R.*, and Levy, *A. J.*, fat metabolism. I. Fat tolerance in obesity, *A.*, 1311.
 Roodenburg, *N. M.* See Nellensteyn, *F. J.*
 Rooke, *H. S.* See Lampitt, *L. H.*
 Rooksby, *H. P.* See Randall, *J. T.*
 Roon, *J. D. van*, cyclic acetals, *A.*, 1019.
 fluorescence of cacao fat, *B.*, 65.
 solidification curves of cacao butter, *B.*, 153.
 m. p. range of cacao butter, *B.*, 956.
 Roos, *K.*, bleaching of cellulose derivatives, (P.), *B.*, 457.
 Roos, *O.* See Goy, *S.*
 Roosen, *R.*, [device for] controlling coal-dust furnaces [of locomotives, etc.], (P.), *B.*, 696.
 Rosa, *D. G.*, Fred, *E. B.*, and Peterson, *W. H.*, growth of yeasts and similar organisms on pentoses, *A.*, 1218.
 Rosbaud, *P.* See Günther, *P.*, and Lunde, *G.*
 Roschier, *H.*, theory of rosin sizing of paper, *B.*, 278.
 Roscoe, *M. H.* See Chick, *H.*
 Rose, *D. C.*, energy losses of electrons in mercury vapour, *A.*, 513, 1335.
 Rose, *R.* See Askenasy, *P.*
 Rose, *R. P.*, Cude, *H. E.*, and General Rubber Co., production of combinations of rubber and paper and product obtained thereby, (P.), *B.*, 1080.
 Rose, *R. P.* See also Esselen, *G. J. jun.*
 Rose, *W. C.* See Berg, *C. P.*, and Hyde, *E. C.*
 Rosebury, *T.*, protein in dental enamel, *A.*, 1203.
 Rosecrans, *C. Z.*, high-sensitivity absolute-humidity recorder, *B.*, 643.
 Rosedale, *J. L.*, and Morris, *J. P.*, amino-acids of tissues. IV. Diamino-acid content of muscle tissue of different classes of animals, *A.*, 1464.
 Rosedale, *J. L.*, and Oliveira, *C. J.*, amino-acids of tissues. V. Monoamino-acids of the horse mackerel (*Caranx rotterli*), *A.*, 1464.
 Roseman, *R.* See Borgstrom, *P.*, and Thornton, *W. M., jun.*
 Rosen, *A. S.* See Krasnow, *F.*
 Rosen, *B.* See Kallmann, *H.*, and Wolff, *Hans.*
 Rosenbaum, *C. K.*, and Walton, *J. H.*, determination of the purity of acetic anhydride, *A.*, 1270.
 use of calcium hydride for the determination of solubility of water in benzene, carbon tetrachloride, and toluene, *A.*, 1363.
 Rosenbaum, *E.*, recovery of fine gold and silver from old gold and silver alloys, *B.*, 1073.
 Rosenberg, *J.*, [refining of petroleum oil crudes by] the Edeleanu process, *B.*, 750.
 Rosenberg, *S. J.*, resistance of steels to abrasion by sand, *B.*, 1156.
 Rosenberg, *S. J.* See also Freeman, *J. R., jun.*
 Rosenberg, *W.* See Hodgson, *H. H.*
 Rosenberger, *G.*, rapid determination of phenolphthalein in aperients, *B.*, 792.
 Rosenblatt, *F.* See Hantzsch, *A.*
 Rosenblatt, *M.*, and March, *A.*, influence of catalytic elements on alcoholic fermentation. II., *A.*, 1620.
 Rosenblatt, *M.* See also Bertrand, *G.*
 Rosenblum, *C.* See Sunier, *A. A.*
 Rosenblum, *S.*, fine structure of the magnetic spectrum of α -rays, *A.*, 837.
 magnetic spectrum of the rays of thorium-C, *A.*, 976.
 Rosenblumówna, *S.* See Weil, *S.*
 Rosenbohm, *E.* See Jaeger, *F. M.*
 Rosenerants, *F. H.* See Internat. Combustion, Ltd.
 Rosenfeld, *B.* See Wieland, *H.*
 Rosenfeld, *G.*, lecithin. II., *A.*, 493.
 degradation of carbohydrates [in the organism], *A.*, 1209.
 Rosenfeld, *L.*, theory of the Faraday effect, *A.*, 132.
 Rosenhain, *W.*, physics and metallography, *B.*, 464.
 Rosenhain, *W.*, Grogan, *J. D.*, and Schofield, *T. H.*, gas removal and grain refinement of aluminium alloys, *B.*, 1072.
 Rosenhain, *W.*, and Jenkins, *C. H. M.*, heat-resisting [iron-chromium-nickel] alloys, (P.), *B.*, 1115.
 Rosenhain, *W.*, and Murphy, *A. J.*, metallography at low temperatures, *A.*, 1395.
 Rosenhauer, *E.*, mechanism of the rearrangement of diazoaminobenzene into aminoazobenzene, *A.*, 1033.
 Rosenhauer, *E.*, and Barlet, *F.*, synthesis of carbopyridinecyanines, *A.*, 95.
 Rosenhauer, *E.*, Hoffmann, *H.*, and Heuser, *W.*, synthesis of 2(4)-quinolyl mercaptans, *A.*, 94.
 Rosenhauer, *E.*, Wirth, *W.*, and Königer, *R.*, chrome dyes; chromotrope 2R. I., *A.*, 81.
 Rosenheim, *A.*, pyroarsenates, *A.*, 1388.
 removal of silicic acid from liquids or solutions, (P.), *B.*, 57.
 stabilising and improving the base-exchanging properties of silicates, (P.), *B.*, 103.
 Rosenheim, *A.*, and Antelmann, *H.*, pyroarsenic acid and pyroarsenates, *A.*, 558.
 Rosenheim, *A.*, and Wolff, *A.*, iso- and hetero-polyacids. XX. Paratungstates. XXI. Heteropolytungstates, *A.*, 1389.
 Rosenheim, *O.*, and Adam, *N. K.*, structure of surface films. XIII., *A.*, 153.
 structure of surface films. XIII. Sterols and their derivatives, *A.*, 257.
 unimolecular films of irradiated ergosterol in relation to the production of vitamin-D, *A.*, 257.
 Rosenhoch, *S.*, ozonising tobacco, (P.), *B.*, 1091.
 Rosenkevitch, *L.*, electrostatic electron emission on illumination of metal surfaces, *A.*, 513.
 Rosenkevitch, *L.* See also Roginski, *S.*
 Rosenstein, *E.*, structure and form of fresh-water limestone, *A.*, 1551.
 Rosenthal, *A.* See Walbaum, *H.*
 Rosenthal, *A. H.*, wave-lengths of the blue argon spectrum with contributions to the term analysis, *A.*, 264.
 Rosenthal, (*Miss*) *J. E.*, spectral intensity and groove form of the diffraction grating, *A.*, 512.

- Rosenthal, (Miss) J. E., and Jenkins, F. A., perturbations in band spectra. II., A., 264.
- Rosenthal, K. See Peyer, W.
- Rosenthal, L. See I. G. Farbenind. A.-G.
- Rosenthal, S., dielectric constant of supercooled sulphur and of some solutions of sulphur, A., 1347.
- Rosenthal, S. See also Kahler, H.
- Rosenthal, S. M., and Voegelin, C., influence of crystalline glutathione on the physiological action of arsenic compounds, A., 1315.
- Rosenthaler, L., behaviour of monohydric alcohols towards ferrous sulphate and hydrogen peroxide, A., 58.
- Reinecke's salt as a microchemical test for alkaloids, A., 98.
- microchemical saponification process, A., 489.
- microchemical reactions. VI. Phytomicrochemical detection of magnesium, A., 881.
- detection of organic compounds. I. and II., A., 941; B., 451.
- titrations with potassium dichromate, A., 1149.
- chemical characterisation of drugs, B., 120.
- microchemical behaviour of the official alkaloids, B., 264.
- chemical characteristics of drugs. VII. Microsublimation in D.A.B. VI., B., 348.
- detection of nickel in drugs, B., 531.
- constituents of aperient drugs, B., 881.
- microchemistry in the domain of essential oils and perfumery material, B., 966.
- quinizarinsulphonic acid (rufanic acid) as a precipitant for alkaloids, B., 1090.
- Roser, E., apparatus for gasifying and distilling solid fuel, (P.), B., 753*.
- distillation of coal for the production of hard and large coke, (P.), B., 851.
- destructive distillation [of carbonaceous materials], (P.), B., 977.
- Roseveare, W. E., X-ray photochemical reaction between potassium oxalate and mercuric chloride, A., 1135.
- Roshdestvenski, M. S., Pukirev, A. G., and Longinov, V. V., preparation and purification of ethyl acetate. II., A., 1556.
- Rosin, J. See Schnellbach, W.
- Rosin, P., thermodynamics of the combustion of powdered coal, B., 592.
- Rosin, P. See also Staatlich Sächsische Hüttenwerke.
- Rosovskaja-Rossinskaja, R. See Bobtelski, M.
- Ross, A., treatment of fabrics, cloths, and similar material [to remove shininess], (P.), B., 657.
- Ross, A. D., physical properties of manganese steel, B., 1113.
- Ross, C. S., and Kerr, P. F., kaolin minerals, A., 569.
- Ross, C. S. See also Wherry, E. T.
- Ross, D. W. See Lambie, J. M.
- Ross, M. F. See Turner, J. F.
- Ross, R. G., and Williams, F. A., building slabs for walls, floors, pavings, etc., (P.), B., 715.
- Ross, W. H., volumetric determination of phosphoric acid, B., 816.
- Ross Engineering Corporation, J. O., method of paper drying and apparatus therefor, (P.), B., 280.
- Rossander, S. S., Bock, L. H., and Marvel, C. S., tetracyclohexyldiphenylethane, A., 1279.
- Rossenbeck, H., rapid concentration of solutions in tubes, A., 1153.
- Rosser, R. J. See Plant, S. G. P.
- Rossetti, C. See Ephraim, F.
- Rossi, B., action of the electron-counting tube of Geiger and Müller, A., 1395.
- Rossi, B., and Bernardini, G., photographic action of slow electrons, A., 46.
- Rossi, L., use of vanadium salts for the differentiation of neutral and acid tartrates and citrates, A., 357.
- Rossier, P. H., change of the isoelectric point of serum in acute infectious diseases, A., 106.
- Rossini, F. D., heat capacities in some aqueous solutions, A., 702.
- Rossiter, E. C. See Brit. Cyanides Co., Ltd.
- Rossmann, E. See Eibner, A.
- Rost, A. See Binz, A.
- Rost, C., continuous kilns, (P.), B., 689.
- Rostás, E. See Márton, L.
- Rostin, H., purification, hydrogenation, and desulphurisation of liquid or gaseous hydrocarbons as, e.g., oils or other liquid or gaseous products of carbonisation, etc., (P.), B., 179.
- conversion or purification of hydrocarbon fluids, (P.), B., 314*.
- hydrogenation of hydrocarbons, especially cracked products, (P.), B., 359.
- Rosztóczy, E. von, behaviour of free cholesterol and its ester in the blood and organs of the rabbit after artificial obstruction of the bile, A., 1207.
- Rota Kessel- & Maschinenbau-Ges.m.b.H., rendering vacuum vessels gas-tight, (P.), B., 169.
- Roth, E., disintegrating machine, (P.), B., 353*.
- Roth, H., dextrose in normal urine, A., 806.
- Roth, H. See also Springer, R.
- Roth, W. A., thermochemistry of chlorine and hypochlorous acid, A., 163.
- keto-enol transformation of dihydroxyacetone, A., 195.
- thermochemistry of iron, manganese, and nickel, A., 295.
- universally applicable substance for the calibration of calorimeters, B., 272.
- determination of the calorific value of solid substances, B., 355.
- Roth, W. A., and Becker, G., thermochemical revisions. II., A., 295.
- Roth, W. A., Grau, R., and Meichsner, A., thermochemistry of sulphur. III., A., 1524.
- Roth, W. A., and Troitzsch, H., electrical calibration of a calorimeter with the aid of a titration coulometer, A., 729.
- Roth, W. A., Umbach, H., and Chall, P., thermochemistry of iron, B., 1113.
- Roth, W. A. See also Grau, R.
- Rothamsted Experiment Station, [fertiliser trials at Rothamsted], B., 921.
- Rothmund, P. See Fischer, Hans.
- Rothen, A. See Levene, P. A.
- Rothenbach, E. F. See Stockhausen, F.
- Rothenfusser, S., detection and determination of sulphurous acid [in foods], B., 81.
- Rothenheim, C. A., and Lettenmayer, L., examination of oils by the extended capillary diagram and the analytical quartz lamp, B., 870.
- Rother, E., and Jander, G., volumetric determination of the rarer metals by visual conductivity titration, A., 1548.
- Rother, F., light-[photo]electric cells, (P.), B., 775.
- Röntgen tubes, (P.), B., 1035.
- Rother, F., and Cohn, W. M., occurrence of a continuous spectrum in the blue and ultra-violet at metal surfaces, A., 390.
- bluish-grey hot radiation from the Lilienfeld X-ray tube, A., 1078.
- Rothaas, A. See Fischer, Hans.
- Rothlin, E., Müller, Fritz, and Chemische Fabrik vorm. Sandoz, acridino derivative for therapeutic purposes, (P.), B., 83*.
- thiazine derivatives [antiparasitics], (P.), B., 441.
- Rothmann, A. See Werner, R.
- Rothschild, F. See Loewe, Siegfried.
- Rothschild, P., respiration of frog muscle in presence of sugar and hormones, A., 494.
- does the "all or none law" hold for the metabolic activity of the single muscle twitch? A., 1211.
- Rothstein, B. See Palfray, L.
- Rotospray Manufacturing Co. See Luense, F. H.
- Rotter, D. L. See Hynd, A.
- Rouanet. See Carrière, E.
- Rouard, P. See Buisson, H.
- Rouge, E., incandescence cathode, (P.), B., 201.
- Roughton, F. J. W., time course of the heat effects in rapid chemical changes. I. Apparatus and methods. II. Reactions of acids, bases, amino-acids, and proteins, A., 426.
- Rouin, G., action of zinc chloride on abietic acid, A., 920, 1590.
- Roush, W. E. See Lange, N. A.
- Roussel, G. See Brocq-Rousseau.
- Routala, O., and Hemmilä, E., salep mannan, A., 582.
- Routala, O., and Kuula, O., straw. II. Production of furfuraldehyde from oat husks and oat straw, B., 278.
- Routala, O., and Soini, H., straw. III. Action of enzymes on the hemicelluloses, B., 278.
- Routala, O., and Weckman, S., use of sulphito waste liquor for the preparation of sulphate-cellulose, B., 235.
- Rouveyron, A., antitoxic action of calcium with respect to manganese in *Bombinator igneus*, A., 1472.
- Roux, A., and Cournot, J., crystallographic analysis by X-rays, B., 464.
- Rouyer, E., ebullioscopic study of some aqueous equilibria at 100°, A., 853.
- Rouyer, E. See also Bourion, F.
- Rowe, A. W. See Lawrence, C. H.

- Rowe, F. M., constitution of some naphthols and fast bases (I.G.) used for the production of insoluble azo-colours, B., 856.
- Rowe, L. W., digitalis assay standards, B., 217.
- Rowe & Co., Ltd., T. B. See Charlton, A. H.
- Rowell, S. W. See Imperial Chem. Industries, Ltd.
- Rowland, B. W. See Goodyear Tire & Rubber Co.
- Rowland, J. M., and Hooker Electrochemical Co., controllably feeding gases [from containers containing them in liquid phase], (P.), B., 127.
- Rowlands, C. B. See Bell, W. R. G.
- Rowlands, M. J., and Wilkinson, B., vitamin-B content of grass seeds in relationship to manures, A., 380.
- Rowledge, E. G. See Stone & Co., Ltd., J.
- Rowley, C. D., and Larsky, A. W., treatment of liquids and organic substances by irradiation, (P.), B., 429.
- Rowley, C. D. See also From, V. C.
- Rowley, H. H. See Evans, W. V.
- Rowley, H. J. See Hibbert, H.
- Roxas, M. L., manufacture of sugar from nipa sap, B., 436.
- Roy, A. C. See Boyd, T. C.
- Roy, B. C. See Sen, R. N.
- Roy, (Mlle.) M. See Boutaric, A.
- Roy, N. C. See Basu, K. P.
- Roy, (Miss) S., and Dhar, N. R., influence of light on the coagulation, electrical conductivity, and the absorption spectra of some colloids, A., 291.
- Roy, S. N. See Datta, S.
- Roy, W. R. See McHargue, J. S.
- Royal, M. F. See Riddle, F. H.
- Royen, A. H. H. van. See Büchner, E. H.
- Royen, H. J. van, and Grewe, H., chemical analysis of refractory materials. III, B., 989.
- Royer, L., asymmetry of corrosion figures produced by an isotropic active liquid, A., 21.
- possible influence of the surrounding medium on the symmetry of certain minerals, A., 529.
- Royer, M. See Molinelli, E. A.
- Royston, J. H. See Garner, J. R.
- Rozanov, N. A., methyltetramethylene and its transformations, A., 587.
- catalytic reactions in organic chemistry. III. Isomeric transformations of a seven-membered ring, A., 602.
- Rozanov, N. A., and Belikov, catalytic reactions in organic chemistry. I. Preparation of cycloheptanone and cyclo-octanone, A., 603.
- Rozanov, N. A., Tjaschelov, and Nikiforov, catalytic reactions in organic chemistry. II. cyclohexylethanol and its transformations; linalool and its transformation under the influence of alumina, A., 597.
- Rozanov, S. N., determination of fluorine in phosphorite, B., 55.
- decomposition of crude phosphates by peat and the influence of neutral salts on this process, B., 255.
- Rozanov, S. N. See also Fivc, M. P.
- Rozenbroek, M. D. See N. V. Chem. Fabr. "Servo."
- Rozières, J. A. L., and Société Anonyme des Produits Oléiques, cleaning of rags by solvents, (P.), B., 1148.
- Rubber Latex Research Corporation, manufacture of rubber compounds, (P.), B., 471.
- plastics, (P.), B., 472.
- manufacture of brake liners, etc., (P.), B., 730.
- cementing methods and substances; [attaching rubber to other surfaces], (P.), B., 732.
- Rubber Latex Research Corporation. See also Wescott, W. B.
- Rubber Service Laboratories Co., and Moore, W. A., vulcanisation of rubber, (P.), B., 830.
- Rubber Service Laboratories Co. See also Hand, C. N., Horst, W. P. ter, Maude, A. H., North, C. O., Scott, Winfield, and Vignos, J. C.
- Ruben, S., and Ruben Rectifier Corporation, (A—E) asymmetric electric couples; (B—D) electric-current rectifiers, (P.), B., 723.
- Ruben, S., and Ruben Tube Co., treatment of electron-emission elements, (P.), B., 246.
- Ruben, S. See also Arcturus Radio Tube Co.
- Ruben Rectifier Corp. See Ruben, S.
- Ruben Tube Co. See Ruben, S.
- Rubens, B., Brick, A., Hallner, W., Pritsker, I., Kagan, S., Chen, N. L., and Horowitz, S., treatment of leather, (P.), B., 523.
- Rubenstein, L., sorption experiments with cellulose nitrate. II. Sorption of vapours by cellulose nitrate, A., 1514.
- Rubeš, T. See Bureš, E.
- Rubinowicz, A., Zeeman effect of the green auroral line, A., 513.
- Zeeman effect of quadrupole lines, A., 653.
- Rubinstein, D. L., X-ray sensitisation. I. Mechanism of sensitisation by iodine salts, A., 1215.
- Rubinstein, S. J., [filling device for] batteries, (P.), B., 955.
- Rubio, J. V. See Bary, P.
- Rublov, S. G. See Burkser, E. S.
- Rubner, M., effect of the contents of the radical of germinated grain grain on calcium and phosphorus metabolism, A., 1313.
- Ruby, A. H., and Continental Oil Co., gas separator [cleaner], (P.), B., 270.
- Ruchhoff, C. C., Kallas, J. G., and Edwards, G. P., bacterial population during [sewage]-sludge digestion, B., 688.
- Ruchhoff, C. C. See also Mohlman, F. W.
- Ruchkin, V., oil in the juice of berries, B., 1163.
- Ruck, P. See Gassan, A.
- Rudberg, E., soft X-rays and secondary electrons, A., 526.
- characteristic energy losses of electrons scattered from incandescent solids, A., 656.
- single collisions of electrons in nitrogen, A., 1082.
- Rude, J., dry-cooling of coke, (P.), B., 404.
- possible improvements in gas producers, B., 1137.
- Rudel, R., and Kleberger, intake of phosphoric acid by plants, B., 1124.
- Rudel, R. See also Kleberger.
- Rudenko, M. G. See Tschitschibabin, A. E.
- Rudenko, N. P., adsorptional method of titration, A., 1010.
- Rudenko, V. V. See Tarassov, B. K.
- Ruder, W. E. See Brit. Thomson-Houston Co., Ltd.
- Rudnick, P. See Hershman, P. R.
- Rudolf, L. See Gen. Aniline Works, Inc.
- Rudolfs, W., decomposition of pure substances in sewage, B., 265.
- changes in composition of gas during digestion of fresh [sewage] solids, B., 266.
- effect of iron compounds on digestion, sedimentation, and [sewage] sludge conditioning, B., 304.
- Rudolfs, W., and Heukelekian, H., thermophilic digestion of sewage solids. I. Preliminary, B., 303.
- Rudolfs, W., Setter, L. R. and Baumgartner, W., effect of iron compounds on [sewage] sedimentation, digestion, and ripeness-sludge conditioning, B., 534.
- Rudolfs, W. See also Fischer, A. J.
- Rudolph, H. See Ostwald, Wolfgang.
- Rudy, H. See Page, I. H.
- Ruebenbauer, H., analysis of sheeps'-milk cheese produced in the Tatra mountains, B., 528.
- Rüchardt, E., oxygen isotope O¹⁸, A., 975.
- Rüdiger, H. See Tammann, G.
- Rüdiger, M., and Wurster, K., mode of combination of calcium in milk and its significance in clotting by rennin, A., 363.
- Rüdiger, W. R., equilibrium of potassium and nitrogen in peat, water, and alluvium, A., 262.
- Ruehe, H. A. See Tracy, P. H.
- Ruehle, G. L. A., keeping qualities of butter. VI. Production of metallic flavour in butter and milk. VII. Microbic flora of off-flavoured butter, B., 1088.
- Rülke, K. See Gerngross, O.
- Ruemelin, R., dust separator, (P.), B., 538.
- Ruer, R., meaning of the equilibrium diagram [of iron-carbon alloys], A., 1360.
- Ruer, R., and Kremers, K., system copper-zinc, A., 161.
- Rüßberg, F., and Kali-Chemie Akt.-Ges., chemical decomposition of crude potash salts, (P.), B., 946*.
- Rüßberg, F. See also Rhenania-Kunheim Ver. Chem. Fabr. A.-G.
- Rüter, B. See Berliner, E.
- Rütgerswerke-Akt.-Ges., and Kahl, L., motor fuel, (P.), B., 181.
- production of pure anthracene, (P.), B., 1059.
- Rütten, E., infra-red transmissivity of thin sputtered films and of organic substances below 3μ, A., 396.
- Rütten, E. See also Dreisch, T.
- Rufe, R. See McClendon, J. F.
- Ruff, O., limit of separation of dissolved substances by fractional precipitation, A., 180.
- fractional precipitation. V. Inclusion of foreign matter in the crystal lattice, A., 286.
- Ruff, O., and Ascher, E., fractional precipitation. IV. Influence of the formation of mixed crystals and adsorption compounds, A., 286.
- Ruff, O., and Clausius, K., m. p. of oxygen difluoride and of nitrogen trifluoride, A., 986.

- Ruff, O., Ebert, F., and Stephan, E., ceramics of refractory substances. IV. System zirconium dioxide-beryllium oxide, A., 162.
- Ruff, O., and Keim, R., products of the reactions between various types of carbon and fluorine. I., A., 1387.
- Ruff, O., and Krug, H., new chlorine fluoride, ClF_3 , A., 878.
- Ruff, O., and Menzel, W., oxygen fluoride, OF_2 , A., 877.
- Ruff, O., and Stephan, E., determination and separation of zirconium and beryllium, A., 184.
- Ruffy, J., determination of crude fibre in cocoa and chocolate, B., 927.
- Ruggles, W. A. See Brit. Thomson-Houston Co., Ltd.
- Ruggli, P., and Henzi, E., indole derivatives of the anthracene series, A., 1192.
- Ruggli, P., and Knapp, F., azo-dyes and their intermediates. IV. Acetyl-1:5-naphthylenediamine and its coupling, A., 1427.
- Ruggli, P., Knapp, F., Merz, E., and Zimmermann, A., azo-dyes and their intermediates. I. Constitution and degradation of nitrated 1-diazo-2-naphthol-4-sulphonic acid, A., 205.
- Ruggli, P., and Zimmermann, A., azo-dyes and their intermediates. III. 6-Amino- β -naphthol-4-sulphonic acid as a dye component, A., 1427.
- Ruggli, P., Zimmermann, A., and Knapp, F., azo-dyes and their intermediates. II. Reductive fission of crichrome-black and 1:6-diamino- β -naphthol-4-sulphonic acid, A., 1427.
- Ruhemann, M., small apparatus for attaining very low temperatures, A., 1549.
- Ruhemann, M. See Simon, F.
- Ruhlandwerk Akt.-Ges., apparatus for regeneration of filtering material used in water-softening filters, (P.), B., 266.
- Ruiz, A., preparation of esparto fibre, etc., (P.), B., 318.
- Ruiz, C., and Libenson, L., ethylenethiocarbamide, A., 1276.
- Ruiz, C. See also Guglielmelli, L.
- Rule, H. G., optical activity and polarity of substituent groups. XIII. Direct space effect in *d*-amyl derivatives, A., 18.
- influence of polar substituents on the optical rotatory power of organic compounds, A., 1095.
- Rule, H. G., and Bain, J., optical activity and polarity of substituent groups. XV. Phenyl-substituted esters and ethers of *l*-menthol and β -octyl alcohol, A., 1293.
- Rule, H. G., and Harrower, J., optical activity and polarity of substituent groups. XVI. Application of the Thorpe-Ingold valency deflexion hypothesis to optically active compounds, A., 1558.
- Rule, H. G., Spence, J., and Bretscher, E., optical activity and polarity of substituent groups. XII. Direct space effects of *m*- and *o*-*p*-directive substituents; 1-menthyl esters of substituted naphthoic acids, A., 18.
- Rule, H. G., Thompson, R. H., and Robertson, A., optical activity and polarity of substituent groups. XIV. Influence of substituent poles and dipoles on the rotatory power of menthyl acetate, A., 1293.
- Rumbold, J. S., action of sodium hydroxide on cellulose, A., 749.
- Rumidor Corporation, cigar and tobacco flavouring and moistening substances, (P.), B., 167.
- Rummel, J. K., corrosion by superheated steam, B., 615.
- Rump, W. See Warburg, E.
- Rumpf, E., mixed crystal series calcium fluoride-strontium fluoride, A., 537.
- interferometer measurements of the carbon tetrabromide molecule, A., 1353.
- Rumpf, E., and Travníček, M., composition of calcium-strontium-samarium sulphide mixed phosphors, A., 665.
- Runde, M. M., Scott, E. W., and Johnson, J. R., rearrangement of the α -furfuryl group; 2-furylacetic acid and 5-methylfuroic acid, A., 783.
- Runehjelm, D., micro-determination of iron in leaves lacking chlorophyll, A., 1483.
- Runehjelm, D. See also Euler, H. von.
- Runge, W., and International Coal Carbonization Co., carbonising of coal, (P.), B., 979*.
- Rnnne, E. See Gen. Aniline Works, Inc.
- Runnström, J., changes of plasma-colloids at the stimulation of development of the sea-urchin egg, A., 952.
- Ruoss, H., determination of hydrogen chloride and of silver by Mohr's method and tests on the accuracy of the determination of silver in mints by Mohr's and by Volhard's method, A., 1541.
- Rupe, H., preparation of hydroxymethylenephylacetaldehyde, (P.), B., 51.
- Rupe, H., and Bernstein, F., influence of certain substituents in the benzene ring on the catalytic hydrogenation of the cyano-group, A., 1180.
- Rupe, H., and Buxtorf, F., cyclic nitrogen compounds derived from camphor, A., 1188.
- Rupe, H., Buxtorf, E., and Flatt, W., Plöchl's reaction; amino-camphor and formaldehyde, A., 1441.
- Rupe, H., and Lang, G., γ -oxido- γ -dimethyl- Δ -octinene, A., 61.
- Rupe, H., and Walraven, F. van, synthetic experiments with *l*- γ -phenylbutyl alcohol, A., 770.
- Rupp, E., refraction of electrons by ionic crystals, A., 6.
- specular [regular] and total reflexion of electrons, A., 128.
- unsymmetrical angular distribution of doubly-reflected electrons, A., 392.
- internal lattice potential of natural and of yellow sodium chloride, A., 843.
- electron diffraction at layers of gas adsorbed on metals, A., 974.
- relationship between electron diffraction and [the critical potential of] soft X-rays, A., 1493.
- Rupp, E., and Hamann, G., ovaluation of tincture of iodine, B., 881.
- Rupp, E., and Schmid, E., deflexion of electrons by passive iron. I., A., 1230.
- Rupp, E. See also Goldmann, F., and Laue, M. von.
- Rupp, V. R. See McClellan, W. S.
- Rusby, J. M. See Humphreys & Glasgow, Ltd.
- Ruschmann, G., biological and chemical examination of stall manures, B., 258.
- Rushton, J. H. See Kilpatrick, M., jun.
- Rushton, J. L., centrifugal machines, (P.), B., 887.
- Rushton, J. L., Hill, H., and Pellatt, D. L., [spinning pot for] production or treatment of artificial threads or other textile yarns, e.g., rayon, by the centrifugal spinning process, (P.), B., 1062.
- Rusiecki, W., evaporation of salt, sugar, and other solutions and the generation of steam, (P.), B., 644.
- Rusinov, L. A. See Fibeg, M. P.
- Rusk, R. D., glow discharge in hydrogen, A., 1226.
- Russ, E. F., induction furnace, (P.), B., 825*.
- electric melting of aluminium, B., 1071.
- Russ, J. M., jun., fumigation with ethylene oxide, B., 842.
- Russell, Alfred, interaction of sodamide and alkyl iodides with acetophenone and its homologues, A., 474.
- Russell, Alfred, and Stewart, A. W., Tesla-luminescence spectra. VIII. Some halogen-substituted derivatives of benzene, A., 16.
- Russell, Alfred. See also Adam, T. C. C., and Monypenny, (Miss) M. W.
- Russell, Arthur, and Hegeman, J. F., production of cellulose acetate, (P.), B., 900.
- Russell, A. S., intermetallic compounds in mercury, A., 177.
- Russell, E. W. See Wiegner, G.
- Russell, H. N., composition of the sun's atmosphere, A., 266.
- Russell, J. S., and Manchester Furnaces, Ltd., metal-hardening furnaces, (P.), B., 196.
- Russell, R. P. See Standard Oil Development Co.
- Russell, W. C., effect of curing on vitamin-A and -D content of alfalfa (lucerne), A., 255.
- vitamin-A content of yellow and white-capped yellow dent maize, A., 1070.
- Russell, W. C., and McDonald, F. G., utilisation of calcium carbonate and citrate by laying and non-laying pullets, A., 107.
- Russidis, D. See Staudinger, H.
- Rússinova, K. I. See Alexcev, A. I.
- Russocki, M. See Dzięwoński, K.
- Rusterholz, A. A., influence of absorption on Debye-Scherrer photographs, A., 1098.
- scattering of X-rays by copper and silver, A., 1491.
- Ruston & Hornsby, Ltd. See Bellamy, A. R.
- Ruszkowski, M., Polish rhubarb, B., 882.
- Rutgers, A. J. See Ehrenfest, P.
- Rutgers, J. J., micro-determination of mercury in organic compounds, A., 629.
- Ruth, J. P., jun., flotation apparatus, (P.), B., 670.
- Ruth, J. P., jun. See also Brinker, F. A.
- Ruth-Aldo Co., Inc., and Barthelemy, H. L., esterification of cellulose, (P.), B., 53, 368.
- saponification of primary solutions of acetylcellulose, (P.), B., 53.
- preparation of cellulose acetate, (P.), B., 900.
- Ruth-Aldo Co., Inc. See also Klein, Melitta.

- Rutherford, (Sir) E., Ward, F. A. B., and Wynn-Williams, C. E., analysis of groups of α -rays. I. α -Rays from radium-C, thorium-C, and actinium-C, A., 1338.
- Ruthing, A., determination of traces of copper in [rubber] materials, B., 781.
- Ruths-accumulator Aktiebolaget, steam generators, accumulators, etc., (P.), B., 798.
- Rutovski, B. N., and Makarova-Semlianskaja, N. N., essential oil of the leaves of *Laurus reobilis*, L., B., 1130.
- composition of Caucasian geranium oil, B., 1131.
- carrot oils, B., 1131.
- Rutovski, B. N., and Vinogradova, I., composition of the essential oil of *Nepeta cataria*, var. *citriodora*, Beck., B., 264.
- composition of the oil of *Dracocephalum Moldavica*, L., B., 741.
- Rutterford, G. V. See King, H.
- Rutzler, J. E., jun., rapid determination of free neutral fat in soaps, B., 517.
- Ruyssen, R., ionisation during the formation of ozone, A., 979.
- Ruzicka, C., cellulose compounds for use in the manufacture of transparent paper and artificial silk, (P.), B., 98.
- production of photographs in natural colours, (P.), B., 794.
- Ruzicka, L., and Eichenberger, E., higher terpeno compounds. XLI. Constitution of santonin, A., 1442.
- Ruzicka, L., Stoll, M., Huyser, H. W., and Boekenoogen, H. A., carbon rings. XV. Preparation and physical data of various carbon rings containing up to 32 carbon atoms, A., 1422.
- Ruziczka, W., [use of] nascent iodine in the detection of some primary aromatic amines, A., 903.
- iodometric acid values of some edible fats, B., 1118.
- Ruziczka, W. See also Fuchs, K., and Hönig, M.
- Ryan, H., Cornelia, W. B., and Hurley, P., condensation of aldehydes with ethyl benzylacetacetate, A., 344.
- Ryan, H., and Creuss-Callaghan, G., preparation and oxidation of flavinogenides, A., 349.
- Ryan, H., McGeown, P., and Keane, J., derivatives of *p*-methoxy- α -methylstyryl methyl ketone, A., 344.
- Ryan, H. See also Coffey, B., and Drumm, J. J.
- Ryan, J. D. See Schoepfle, C. S.
- Ryan, L. W. See Titanium Pigment Co., Inc.
- Ryan, M. See Griesheimer, E. M.
- Ryba, G., application of respiratory devices, especially carbon monoxide filters, in mines, B., 642.
- Rydberg, R. See Bengtsson, E.
- Rydbom, M. See Karrer, P.
- Ryde, N., series of combination lines in the neon spectrum, A., 388.
- Ryder, J. C., and Petroleum Derivatives, Inc., distillation process [for liquid hydrocarbons], (P.), B., 179.
- Ryen, I. See Lenander, N. E.
- Rygh, O., hydrocarbons from ergosterol, A., 203.
- Rygh, O. See also Windaus, A.
- Ryles, E., and Sopwith, J., apparatus [valve devices] for aerating liquids under pressure, (P.), B., 696.
- Ryndin, T. See Abderhalden, E.
- Ryniker, W. E., furnace, (P.), B., 1.
- Rys, A., B., 614.
- Ryschkevitch, E., high-temperature furnace based on the surface-combustion principle, B., 589.
- Ryszelberge, P. J. van, some recent contributions to the electrochemistry of strong electrolytes, A., 859.
- Ryszelberge, P. J. van. See also McBain, J. W.

S.

- S. I. P. P. See Soc. Int. des Procédés Prudhomme.
- S. I. R. I. See Società Italiana Ricerche Industriali.
- S. & T. Metal Co. See Shoemaker, R. J.
- Saakov, S. G. See Sobyannin, N. P.
- Saar, R., calculation of the original gravity of beer, B., 963.
- Saayman, E. H. See Bröse, H. L.
- Sabalitschka, T., food preservatives, B., 530.
- manufacture of materials resistant to or active against micro-organisms [food preservatives and disinfectants], (P.), B., 968.
- Sabalitschka, T., and Böhm, E., bactericidal action of "Sagrotan" and "Thissiol"; disinfectants containing chloroxylenols, B., 265.

- Sabalitschka, T., and Schweitzer, F. L., relation between chemical constitution and action on micro-organisms. VIII. Glucosides of simple and chlorinated *p*-hydroxybenzoic acids and their esters, A., 71.
- Sabalitschka, T., and Weidlich, R., malt amylase. VIII. Identity of the dextrinising and saccharifying enzymes, A., 249.
- Sabalitschka, T., and Zimmermann, K., influence of the carrier on the catalytic activity of metal-carrier catalysts. II., A., 430.
- Sabaschnikov, A. V., effect of various modes of cultivation on nitrate formation in soil, B., 387.
- Sabatini, A., action of quinine on blood-catalase, A., 497.
- Sabetay, S., presence of β -ionone in a natural product, A., 121.
- aldehydes containing the ether-oxygen group, A., 323.
- ether-esters of lactic acid, A., 741.
- employment of optically active acylhydrazines in the resolution of racemic aldehydes and ketones, A., 745.
- dehydration with potassium hydroxide of ethylol groups adjacent to a benzene ring. III. Dehydration of $\alpha\alpha$ -arylalkylethanols, A., 1177.
- Sabetay, S., and Bléger, J., benzyl-alcoholic potassium hydroxide and its applications; determination of halogen, A., 318.
- sodation of the cyclanols, A., 596.
- catalytic partial decomposition of cyclohexanediols with iodine and bromine, A., 1034.
- chromic acid oxidation of cyclanepolyols, A., 1179.
- glycols of high mol. wt. and their partial dehydration products, A., 1403.
- Sabetay, S., and Mintson, T., dehydration of a hydroxyethyl side-chain with potassium hydroxide. II. Aminostyrenes, A., 85.
- Sabetay, S. See also Fournneau, E.
- Sabetta, V. J. See Olsen, J. C.
- Sabinin, D. A., and Minina, E. G., regulation of the reaction of an external solution by plants, A., 262.
- Sabojev, S. A. See Salkind, J. S.
- Sabolotnova, M. See Ivanovski, N.
- Sabron, R. See Mailhe, A.
- Saccardi, P., melanins from adrenaline, A., 111.
- Sach, J. S. See Adam, W. G., and Potter, F. M.
- Sachanen. See Sachanov.
- Sachanov, A., and Tilitschev, M., cracking of petroleum products, (P.), B., 134.
- Sacharov, L. S. See Gavalovski, W. A.
- Sachoulis, N., apparatus for production of alcohol from substances containing starch, B., 437.
- Sachs, G., and Weerts, J., orientation of single crystals obtained by recrystallisation, A., 279.
- grating constants of gold-silver mixed crystals, A., 527.
- stretching of gold-silver crystals, A., 1101.
- Sachs, G. See also Ageev, N. V., Göler, von, Karnop, R., Kurdjumov, G., and Ohshima, K.
- Sachs, W. See Freundlich, H.
- Sachse, H., ferromagnetic ferric oxide as a model for the Heisenberg theory of ferromagnetism, A., 1101.
- Sachse, H., and Haase, R., magnetic transitions of regular ferric oxide, A., 1100.
- Sachse, H. See Ladenburg, R.
- Sachtleben, R. See Hönigschmid, O.
- Sachtleben Akt.-Ges. für Bergbau & Chemische Industrie, purification of natural heavy spar, (P.), B., 508.
- Sachtleben Akt.-Ges. für Bergbau & Chemische Industrie, and Nitze, H., precipitation of potassium cobaltinitrite, (P.), B., 711.
- Sack, H. See Goldhammer, R., Mizushima, S., and Müller, Horst.
- Sacks, J. H. See Du Pont de Nemours & Co., E. I.
- Sadikov, V. S., and Poschiltzova, E. A., cyclotripeptido from caseinogen, A., 1197.
- Sadler, H. See Suida, H.
- Sadrawetz, B. See Heller, K.
- Sadron, C., ferromagnetism of alloys of nickel and of chromium, A., 984.
- Sadtler, P. B., and Swenson Evaporator Co., evaporator and process of evaporation, (P.), B., 308*.
- Sadtler, S. S., water softener, (P.), B., 1048.
- Sadtler, S. S., and Amiesite Asphalt Co. of America, waterproofing of stone, (P.), B., 14*.
- liquefier for preparing stone for bitumen coating, (P.), B., 146*.
- Saegusa, H., and Shimizu, S., anomalous after-effect of dielectrics for their apparent resistivity, A., 674.
- Saenger, H. H. See Berl, E.
- Sänger, R., determination of electric moments of molecules from the temperature variation of the dielectric constant, A., 666.

- Sänger, R., and Steiger, O., effect of temperature on the molecular polarisation of gases and vapours, A., 275.
- Sängewald, R. See Weissberger, A.
- Sáenz de Buruaga, J., a homologue of ephedrine, A., 85.
- Sáenz de Buruaga, J. See also Madinaveitia, A.
- Safford, C. E., and Greeley, A. H., heat-exchange apparatus [radiator], (P.), B., 931.
- Saffron, J. See Tacke, B.
- Sagaidatschni, A. F., review of work of the research laboratory at the Health Insurance Board sanatoria in Eupatoria; [sludge of salt lakes], A., 1015.
- Sagaidatschni, A. F. See also Iljinski, V. P.
- Sagara, J., embryochemical investigations with the injection method. IV. Glutathione formation in the organism of the hen's embryo, A., 952.
- behaviour of bound sugar in the incubated hen's egg, A., 1470.
- formation of ornithuric acid in the rabbit, A., 1470.
- Sagastume, C. A., and Solari, A. A., bactericidal action of chlorine, A., 1068.
- Sagilun, A. See Kopp, D.
- Sagortschev, B. See Karaoglanov, Z.
- Saha, M. N., colours of inorganic salts, A., 272.
- Saha, T. M. See Chowdhury, J. K.
- Sahasranam, A. R. See King, P. E.
- Sahyun, M., and Luck, J. M., influence of adrenaline and insulin on distribution of glycogen in rabbits, A., 254.
- Sai-Morseeva, E. G. See Kartaschev, A. V.
- Saijo, S., and Nagai, Y., volatility of liquids, A., 1357.
- Saillard, E., constant-weight and constant-volume methods [of determining sucrose in the beet], B., 477.
- Sainderichin, N. See Folliet, A.
- Saint, S. J., pan boiling [control of cane sugar], B., 476.
- St. Clair, H. See Funk, E. H.
- Saint-Fort, B., gasification of heavy fuel oils, (P.), B., 313.
- St. John, C. P., elements unidentified or doubtful in the sun, A., 515.
- St. John, (Miss) E. L. See Gilman, H.
- St. John, J. L., plasticity of flour-water suspensions, B., 33.
- St. John, J. L., and Morris, O. M., quality and maturity of apples, B., 34.
- St. John, N. B. See Gilman, H.
- St. Joseph Lead Co., electric smelting of zinc ore, (P.), B., 994.
- St. Joseph Lead Co. See also Gaskill, E. C.
- St.-Maurice, matte smelting of oxidised copper ores in reverberatories, B., 950.
- Saint-Maxen, A., auto-oxidation of quinol, A., 1128.
- Sainton, P., and Simonnet, H., iodine content of thyroid gland in simple and exophthalmic goitres, A., 1207.
- Sainty, C. L. See Carrier Eng. Co., Ltd.
- Saito, K. See Akabori, S.
- Saito, M. See Abderhalden, E.
- Saito, S., studies on chemical reactions by potentiometric methods. I. Reactions between potassium ferrocyanide and zinc sulphate which have to be taken into consideration in volumetric analysis, A., 53.
- Saito, S. See also Wada, I.
- Saitschenko, A., predisposition, due to age, towards cancer; changes, due to age, in the surface tension of blood-serum, A., 806.
- Sajitz, R., and Thiel, E. (Chemische Fabrik Pott & Co.), production of water-soluble substances having capillary-active properties [solvents, wetting, emulsifying, and frothing agents], (P.), B., 809.
- Sajous, P., fat content of Gruyère cheese, B., 1044.
- Sakai, H., cholesterol content of the liver after administration of peptone, A., 246.
- cholesterol metabolism: its dependence on the thyroid gland and on the spleen, A., 246.
- Sakai, H. See also Sato, M.
- Sakamaki, T. See Matsui, M.
- Sakata, S. See Ishii, R.
- Sakei, M., urca-excreting function of the liver. I. Normal. II. Effect of plant poisons, A., 805.
- Saklatwalla, B. D. See Vanadium Corp. of America.
- Sakmin, P. K., determination of phenol and *m*-cresol in crude phenol oil, B., 890.
- Sakotschikov, A. P., examination of the fine structure of vegetable fibres by means of concentrated sulphuric acid, B., 707.
- Saks, V. V., and Filtrators, Ltd., [emulsions for] prevention of scale formation in steam generators, evaporators, condensers, etc., or the removal of scale therefrom, (P.), B., 40.
- Sakurada, I., celluloseamino and celluloseaniline, A., 73*.
- process of solution of cellulose fibres in ammoniacal copper solution and the viscosity of the solutions, A., 1416.
- kinetics of the "coppering" of cellulose fibres, A., 1417.
- Sakurada, I. See also Kita, G., and Trogus, C.
- Sakurai, B., electrolytic reduction of phthalimides. I., A., 1183.
- Sakurai, C., effect of lecithin on blood-sugar, A., 802.
- Sakurai, S., influence of parenteral injection of cell substance of thyroid gland on blood-fat and -lipins. I. Cholesterol. II. Total fatty acid and lecithin, A., 1624.
- Sakurai, S. See also Suzuki, T.
- Salaman, E. See Harper, G. I.
- Salant, E. O. See Breit, G.
- Salaskin, S., carbamide formation in the animal body. I. Introduction, A., 1619.
- Salaskin, S., and Soloviev, L., carbamide formation in the animal body. II. Carbamide formation in surviving organs and in their press-juice, A., 1619.
- Salaskina, S. See Martinson, E. E.
- Salazar, L., effect of sodium salicylate on the viscosity of blood in the living animal, A., 496.
- Salazar, M. T., and Moles, E., constitution of schönite, A., 47.
- Salceanu, C., magnetic birefringence of organic substances in the fused condition, A., 668.
- magnetic birefringence of phenol, naphthalene, and phenanthrene liquefied by fusion, A., 1348.
- Saldau, P. Y., and Anissimov, N., solubility of copper in aluminium in the solid state, B., 1157.
- Saldau, P. Y., Pospelov, V. I., Petrov, A. D., and Isachenko, V. B., disinfection of grain and flour with chloropierin and other volatile substances, B., 390.
- Sale, J. W., control of mineral waters and their salts under the Federal Food and Drugs Act, B., 838.
- Salenius, E. G. N., and Salenius, (Mrs.) E. S., butter manufacture, (P.), B., 965.
- Salenius, (Mrs.) E. S. See Salenius, E. G. B.
- Salerni, E. M., and E.M.S. Industrial Processes, Ltd., apparatus for removing dust from gases or vapours, (P.), B., 591*.
- Salatore, S. R. A. See Guha, P. C.
- Salinger, H., telegraph cable having very high inductivity, (P.), B., 336.
- Salinger, M. H. See Torrey, J. C.
- Salisbury, H. M. See Davis, C. E.
- Salisbury, O. J. See Apablaza, J. V.
- Salit, P. W., acid-base equilibrium of the ocular humours, A., 946.
- Salitówna, A., new formula for determination of the limiting conductivities of uni-univalent electrolytes, A., 704.
- Salitówna, A. See also Hlasko, M.
- Salkind, J. S., and Faerman, S. B., dibromonaphthalenes obtained by the action of bromine on naphthalene, A., 1569.
- Salkind, J. S., and Niedzwietzki, S. V., action of halogen acids on acetylenic glycols, A., 1554.
- Salkind, J. S., and Sabojev, S. A., action of hydrogen bromide and bromine on glycols of the ethylene series, A., 574*.
- Salkind, J. S., and Teterin, V. K., formation of geometrical isomerides by the hydrogenation of the acetylenic γ -glycols; tetraphenylbutenediols, A., 574.
- Salkind, S. See Potozky, A.
- Salle, A. J., and Reinke, E. A., antimony method for the determination of sulphide [in sewage], B., 1132.
- Salley, D. J. See Burns, R. M.
- Salls, C. M. See McKee, R. H.
- Salmang, H., constitution of silicate fusions, B., 713.
- Salmang, H., and Goeth, F., properties of various alumina-clay mixtures under various firing conditions, B., 284.
- Salmang, H., and Wentz, B., conversion of quartz of different grain-size into silica-stone in presence of various fluxes, B., 557.
- Salmang, H. See also Krings, W., and Miksch, R.
- Salminen, A., reaction of cultivated Finnish soils, B., 577.
- variations in the reaction of cultivated soils, B., 577.
- Salmon, E. S. See Goodwin, W.
- Salmon-Legagneur, F. See Ramart, (Mme.) P.
- Salomon, H., and Zuelzer, G., heart hormone ("eutonon") from the liver, A., 1069.
- Salomon, K. See Michaelis, L.
- Salstrom, E. J., and Smith, G. McP., reciprocal influence of the presence of sodium sulphate and of potassium sulphate on the solubilities of each other in water, A., 1512.
- Salter, W. T. See Harington, C. R.
- Salvaterra, H., iron soaps [complex iron compounds], A., 1162.

- Salzbergwerk Neustassfurt, production of hydrochloric acid and mangosia from magnesium chloride, (P.), B., 323.
- Salzman, S. I., hardening of steel, (P.), B., 149.
- Salzmann, C. See Liestmann, W.
- Salzwedel, E., derivation of a general formula for the temperature dependence of the specific gravity of homogeneous liquids from experimental observation and in relation to similar problems, A., 1104.
- Salzwerk Heilbronn Akt.-Ges., Schmidt Ges.m.b.H., K., and Flor, K., production of pure alumina, (P.), B., 143.
- Sama, P. See Sonnino, V.
- Samaan, K., germicidal power of colloidal metallic silver and of ionic silver on *B. typhosus*, A., 960.
- Samal, C. See Šandera, K.
- Samarin, G. A., and Myasnikov, A. L., determination of the bile-acid content of urine, A., 1467.
- Samarina, K. I. See Trifonov, N. A.
- Sambursky, S., Fermi insignity formula for the principal series doublets of the alkalis, A., 831.
- Samdahl, B., derivatives of cyclohexanone, including several new indicators, A., 343.
- Samdahl, B. See also Fournau, E.
- Samec, M., micellar theory of the starches and physico-chemical properties of starch substances, A., 584.
- Samec, M. [with Pirkmaier, B.], humic acids, B., 697.
- Samec, M. and Blinc, M., plant colloids. XXIII. Erythro-substances, A., 416.
- Sameshima, J., sorption of ammonia by charcoal, A., 1108.
- Samesreuther, R., and Kränzlein, G., heat-exchange apparatus, (P.), B., 490.
- Samesreuther & Co. G.m.b.H. See Kränzlein, G.
- Samiran, D., and Melville, P., fluid segregator, (P.), B., 126.
- Samm, G., centrifugal mixing machines for sand, etc., (P.), B., 86.
- Samoilova, A. Y., determination of nitrogen in soils by the Mitscherlich vegetation method, B., 784.
- Samoruev, G. M. See Urazov, G. G.
- Sampey, J. R., relative rates of reduction of aromatic nitro-compounds [by stannous chloride], A., 301.
- polarity of the carbon-halogen linking. III. Inhibitory effect of water on acid hydrolysis of halogenonaphthols, A., 550.
- Samson, E. W. See McLennan, J. C.
- Samson-Himmeltstjerna, H. O. von, electrolytic charging of metals with hydrogen, A., 431.
- Samuel, E., Brownian molecular motion, A., 1115.
- Samuel, R., and Lorenz, L., transition from non-polar to polar linking, A., 137.
- Samuel, R. See also Lessheim, H.
- Sanborn, J. R., and Hamilton, W. B., influence of *Azotobacter chroococcum* on the physiological activities of cellulose destroyers, A., 252.
- Sanborn, N. E. See Corson, B. B.
- Sanborn, N. H. See Kohman, E. F.
- Sánchez, J. A., reactions of cystine, A., 1563.
- Sand, H. J. S., hydrogen overpotential in acid solution, A., 297.
- separation of metals by "internal electrolysis," A., 880.
- Sandberg, C. P., Sandberg, O. F. A., Sandberg, N. P. P., and Bampfyde, J. W., manufacture of alloys of iron and aluminium, (P.), B., 105.
- Sandberg, N. P. P. See Sandberg, C. P.
- Sandberg, O. F. A. See Sandberg, C. P.
- Sande, J. G. van der, preparation and study of some assimilation products of *Pleurococcus vulgaris*, A., 793.
- Sandell, E. B. See Kolthoff, I. M.
- Šandera, K., polarographic studies with the dropping mercury cathode. XII. Commencement of the decomposition of sucrose, A., 999.
- determination of the amount of crystal in massecuites, using the electrical conductivity method, B., 477.
- crystallisation of "uncrystallisable" syrups, B., 478.
- measurements [of colour] with the objective photocolormeter [in sugar manufacture], B., 1126.
- Šandera, K., and Preininger, V., decrease of the salts in carbonation [of sugar juice] as observed by electrical conductivity measurements, B., 582.
- Šandera, K., and Samal, C., determination of the fine grain of molasses and syrups, B., 925.
- Šandera, K. See also Staněk, V.
- Sanders, H. See "Kolloidchemie" Studienges. m.b.H.
- Sanders, K. B. See MacIntyre, W. H.
- Sanders, R., effect of iron on metabolism, A., 1061.
- Sandhaas, W. See Curtius, T.
- Sandifer, D. A. N., "pendulum" hardness tests of commercially pure metals, B., 1074.
- Sandin, R. B., and Drake, W. V., derivatives of diphenyl sulphide and diphenyl ether, A., 1285.
- Sandin, R. B., and Stover, N. M., determination of organic nitrogen in liquids, A., 968.
- Sandonnini, C., oxidation of ferrous hydroxide, A., 878.
- pyrolysis of certain organic substances, A., 1165.
- Sándor, G., distinction between cellon and cellophane, B., 235.
- Sándor, S. See Bergmann, E.
- Sándor, Z. von, development of rancidity in fats, B., 336.
- Sandqvist, H., and Gorton, J., three isomeric cholesteryl nitrobenzoates, A., 1179.
- stigmastrol and its empirical formula, A., 1431.
- Sandqvist, H., and Lindström, T. O. H., preparation of lyophile products of fatty substances, (P.), B., 725.
- Šandra, K., and Sigmund, R., surface tensions [of sugar solutions], A., 538.
- Sandrowski, Z. See Lampe, W.
- Sands, L., and Klaas, R., composition of cholla gum. I. Isolation of *l*-arabinose, *d*-galactose, and *l*-rhamnose, A., 69.
- Sandstedt, R. M. See Blish, M. J.
- Sandstrom, W. M., physico-chemical studies on proteins. IV. Comparative study of the acid and alkali binding of native and deaminised proteins, A., 940.
- Sandved, K., exact method of ascertaining the bimolecular course of a chemical reaction, A., 424.
- Sanford, A. H., and Sheard, C., photo-electrometric determination of haemoglobin, A., 1606.
- Sanford, C. R. See Hickman, K. G. D.
- Sanfourche, A., Hernette, A., and Fau, M., action of gaseous ammonia on phosphoric oxide, A., 557.
- Sanfourche, A., and Rondier, L., irreversible reduction of nitrogen oxides by sulphurous acid, A., 1007.
- Sanger, W. E., and Wurster, O. H., apparatus for distilling liquids [especially crude glycerin], (P.), B., 492.
- distillation of liquids [especially crude glycerin], (P.), B., 971.
- Sani, G., reducing power of the roots of *Graminea*: reduction of calcium nitrate. III., A., 382.
- Sanigar, E. B., titration of potassium cyanide, and of free cyanide in silver-plating solutions, by means of silver nitrate, B., 1074.
- Sankaran, G. See Newcomb, C.
- Sankey, C. A. See Hoover, G. I.
- San'kyo Kabushiki Kaisha. See Shoji, I.
- Sanna, G., camphorophorone. II. The nitrosohydroxylamine, A., 92.
- indole halogeno-ketones. II., A., 222.
- indole derivatives of coumarone, A., 226.
- Sanna, G. See also Puxeddu, E.
- Sanna, G. E. S., treatment of wood and other fibrous material, (P.), B., 1031.
- Sano, T., method of obtaining a single crystal of aluminium of any desired crystallographic orientation, A., 1240.
- Sano, Y. See Osugi, S.
- Sanotzki, E. I., and Kirsanov, A. T., determination of the nutrient requirement of soils; Neubauer's method, B., 578.
- Sans, J., and Ehlinger, A., determination of the proportion of sulphur dioxide converted into trioxide when gas from roasted pyrites is passed over catalysts, B., 1025.
- Sanson, A., actual state of the metallurgy of electrolytic zinc according to recent publications, B., 951.
- Santenaise, D. See Péneau, H.
- Santesson, C. G., toxicity of bismuth sulphide; behaviour of bismuth compounds in the organism, A., 1213.
- Santillan, P., and West, A. P., chaumoogryl-bromo- and -chlorophenols, A., 211.
- Santy, A. C. See Anderson, Arthur K.
- Sapgir, S., concentrated solutions. VII. Application of thermal analysis to binary mixtures of organic compounds melting at very low temperatures, A., 147.
- "Saponite," composition for making, maintaining, consolidating, and repairing highways or roads, (P.), B., 908.
- Saposhnikov, A. V., Okatov, A. P., and Susarov, M. A., adsorption of nitrogen peroxide by colloidal silicic acid, A., 151.
- Sapper, A. See Biltz, W.
- Saradjichvili, P. See Raffin, R.
- Sarasin, A. See Bernoulli, A. L.
- Sárek, J., what reasons compelled the Prague Ironworks Company to introduce thin-walled blast-furnaces? B., 1068.

- Sargent, B. W., upper limits of energy in the β -ray spectra of actinium-*B* and actinium-*C'*, A., 8.
- Sarin, E., and Ausin, O., composition of Lithuanian wheat, B., 1128.
- Sarjant, R. J. See Hadfield, (Sir) R.
- Sárkány, I. See Szelőcey, J.
- Sarkar, A. K. See Mitter, P. C.
- Sarkar, P. B., and Barat, T. P., hexamminecobaltic sulphate. I. and II., A., 702, 1009.
- Sarkar, P. B., and Bhattacharya, S. N., complex chromiselenates. I., A., 1539.
- Sarkar, P. B., and Datta-Ray, B. K., gravimetric determination of nickel, cobalt, and cadmium, A., 882.
- Sarkar, P. B., and Rây, N., homology of BeF_2 and SO_2 ions from chemical, structural, and crystallographic points of view, A., 410.
- Sarkar, P. B. See also Chowdhury, J. K., and Rây, P.
- Sarma, J. C., kinetics of the catalytic oxidation of arsenious acid with ferric chloride in presence of potassium iodide, A., 550.
- Sarti, U. See Cecchetti, B.
- Sartori, A., poisoning by oxalic acid, A., 812.
[detection of] mercury oxycyanide poisoning, A., 1618.
- Sartori, E. See Carrasco, O.
- Sartorius, F., and Ottmeyer, W., suitability of active charcoal for caffeine adsorption, especially from coffee infusions, B., 346.
- Sarver, L. A. See Kolthoff, I. M.
- Sasakawa, K., properties of special steels, B., 511.
- Sasaki, J., helium content of some Japanese minerals. II., A., 1156.
- Sasaki, K. See Fuseya, G.
- Sasaki, S., germination of seeds. I. Transformation of nitrogenous compounds during germination of soya-bean seeds. II. Starch produced during the germination of soya-bean seeds, A., 1482.
- Sasaki, Y. See Miyata, M.
- Saschek, W. J. See Niederl, J. B.
- Saslavsky, A., and Chait, S., effect of concentration of sodium chloride on certain biochemical processes in limans, A., 56.
- Saslavsky, A., and Harzstein, N., effect of salts on obligate halophilic thionic acid bacteria, A., 1622.
- Saslavsky, J. J., and Standel, E. G., change of volume on neutralisation. II., A., 410.
volume changes in reactions of neutralisation, A., 992.
- Saslow, G. See Ponder, E.
- Sasse, A. R., and Pearson, J. T., value of the viscosimeter in a commercial flour-mill laboratory, B., 584.
- Sass-Tisovskii, B. A. See Gurvich, M. N.
- Sastri, B. N., starch-liquefying action of sandal leaf extracts, A., 385.
- Sastri, B. N., and Sreenivasaya, M., spike disease of sandal (*Santalum album*, Linn.). VII. Factors influencing diastatic activity. VIII. Composition of leaf-tissue fluids. IX. Composition of stem-tissue fluids, A., 335.
- Sastri, B. N. See also Sreenivasaya, M.
- Sata, N., relation between adsorption and solubility, A., 23.
- Sathe, T. R. See Pillai, T. R. N.
- Sato, A., detoxicating hormone [yakriton] of the liver. XIX. Standardisation of yakriton, A., 1627.
- Sato, A. See also Yasada.
- Sato, K., Uyeda, K., and Kurokawa, T., fate of infused sugar with particular reference to the sugar affinity of the tissue cells. VI. Lactacidogen, lactic acid, and inositol in muscle after injection of sugar, A., 1614.
- Sato, M., and Sakai, H., extraction of soya-bean oil with alcohol. II. (i) Solubility of soya-bean oil in alcohol, B., 1118.
- Sato, M., and Seto, I., extraction of soya-bean oil with alcohol. II. (iii) Separation and recovery of phosphatides and carbohydrates from alcoholic extract of soya beans, B., 1118.
- Sato, M., and Yokochi, M., extraction of soya-bean oil with alcohol. II. (ii) Extraction of soya-bean oil with alcohol, B., 1118.
- Sato, Masakazu. See Linderstrom-Lang, K.
- Sato, N., creatine and creatinine. II. Influence of organ extracts, bacteria, and p_H on creatine and creatinine. III. Amount of creatine and creatinine in pathological tissues of female genital organs. IV. Fate of creatine and creatinine in the incubated hen's egg, A., 495.
- Sato, S. See Shinoda, J.
- Sato, Seikichi, thermal analysis of quenched carbon steels, B., 147.
- Sato, Shôichi, caseinogen-splitting action of papain, and mechanism of the acceleration by hydrogen cyanide, A., 374.
- Sato, T. See Asakura, K., and Shinoda, J.
- Sato, Takeshi. See Matsumura, S.
- Sato, Teruo. See Kariyone, T.
- Satoh, S., arc-welding of cast iron with metallic electrodes, B., 463.
- Satow, T., [urushiol] lacquer composition, (P.), B., 872.
[stable] preparation of colloidal silver, (P.), B., 1116.
- Sattler, L. See Zerban, F. W.
- Satwalekar, S. D., Butler, L. W., and Wilkinson, J. A., reactions in liquid hydrogen sulphide. VIII. Specific conductance of liquid hydrogen sulphide, A., 1243.
- Sauciuc, L. I., chloroantimonates, A., 1388.
- Sauer, E., and Bock, O., viscosity measurements as a method of testing glues, B., 159.
- Sauer, E., and Kleverkaus, E., swelling of gelatin in acids, A., 416.
- Sauer, J. See Stepp, W.
- Sauer, J. N. A., and Algemeene Norit Maatschappij, apparatus for production of active carbon, (P.), B., 650*.
- Sauerberg, H. See Curtius, T.
- Sauerbrey Maschinenfabrik Akt.-Ges., G., distillation apparatus for fine-grained materials [rice husks], (P.), B., 176.
apparatus for distillation of finely-divided material, (P.), B., 269.
- Sauermilch, W. See Ziegler, K.
- Sauerwald, F. [with Fleischer, F., Fischnich, A., and Rademacher, A.], cold and hot deformation of austenitic nickel steel and transformer iron, B., 194.
- Sauerwald, F., Schmidt, B., and Dienenthal, H., behaviour of single crystals in brittle regions of α -iron and α -brass, A., 675.
- Sauerwald, F., and Sperling, T., influence of mechanical deformation on the transition points of iron and steel, A., 23.
- Sauerwald, F. See also Kraiczek, R., and Widawski, E.
- Saulmann, W., and "Diamco" Akt.-Ges. für Glühlicht, [block-type] electric dry batteries, (P.), B., 516.
- Saunders, K. H. See British Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Saunders, M. W., and Hynes, J. J., manufacture of oil paint, (P.), B., 826.
- Sauter, E., heterogeneous catalysis and chemical sorption, A., 1531.
- Sauter, F., solution of the Dirac equation without specialisation of the Dirac operators, A., 1234.
- Sauter, H. See Pauly, H.
- Sautier, H. See Ges. f. Kältechemie Ges.m.b.H.
- Sauvageot, M., and Lauprêtre, (Mlle.) L., action of the common acids on various kinds of non-rusting steels, B., 1071.
- Sauveur, A., and American Rolling Mill Co., iron-carbon alloy, (P.), B., 1033.
- Savage, P. M. See Harshaw, W. J.
- Savard, J., ultra-violet absorption spectrum of aniline vapour, A., 519.
- Savilev, A. O. See Petrov, A. D.
- Savinov, B. G., and Kosheverova, E. P., sources of error in quinhydrone p_H determination of sugar-house products, B., 926.
- Savostianova, M., colloidal nature of the colouring substance in coloured rock-salt, A., 1234.
formation of the latent photographic image, A., 1385.
- Sawai, I., and Nishida, M., shrinking force of metallic leaves at high temperature, A., 991.
changes of length of glass threads at high temperatures, A., 1530.
- Sawai, I., Uyeda, Y., and Nishida, M., shrinkage of metallic leaves on heating, A., 1529.
- Sawyer, C. B., and Tower, C. H., Rochelle salt as dielectric, A., 398.
- Sawyer, R. A., excitation processes in the hollow cathode discharge, A., 1225.
- Sawyer, R. A. See also Mack, J. E.
- Sawyer, R. B., reflexion of lithium ions from metal surfaces, A., 835.
- Saxton, B. See Skau, E. L.
- Sazama, R. F. See Porter, B. A.
- Sborgi, U., and Amelotti, L., borates; the system $\text{Na}_2\text{O}-\text{B}_2\text{O}_3-\text{H}_2\text{O}$, A., 1122.
- Sborgi, U., and Borgia, A., influence of a magnetic field on the passivity of metals, A., 1101.

- Scagliarini, G., and Pratesi, P., colour reaction between sodium nitroprusside and creatinine, A., 351.
 potentiometric determination of alkali sulphides, A., 726.
- Scagliarini, G., and Tartarini, G., additive compounds of halides of bivalent metals with organic bases. VII., A., 328.
- Scarborough, H. A. See McCombie, H.
- Scarpa, O., measurement of resistance of electrolytes, A., 544.
- Scarth, G. W., Gibbs, R. D., and Spier, J. D., cell walls in wood. I. Structure of the cell wall and distribution of chemical constituents, A., 382.
- Scarth, G. W., and Jahn, E. O., sinkage [of pulp-wood]. I. Mode of penetration of water into logs, B., 907.
- Scarth, G. W., and Spier, J. D., cell walls in wood. II. Effect of solvents on permeability of red spruce heartwood, A., 383.
 rate of reaction in a changing environment, A., 300.
- Scatchard, G., and Tefft, R. F., *E.M.F.* measurements with calcium chloride solutions, A., 998.
E.M.F. measurements on cells containing zinc chloride; activity coefficients of chlorides of bivalent metals, A., 998.
- Ščerbačeva, D. See Dorfman, W. A.
- Schaad, R. E. See Egloff, G.
- Schaaf, F., composition of melanotic pigment, A., 365.
- Schaal, R. B., determination of the alkalis in vitreous enamels, B., 326.
- Schacherl, R. See Schindler, W.
- Schachkeldian, A., colour reaction for zinc, and the composition of the precipitate obtained by the action of potassium ferrocyanide on zinc salts in the presence of cobalt, A., 563.
- Schachno, A. P., and Rappoport, I. B., low-temperature carbonisation of Moscow coal, B., 42.
- Schachno, A. P., and Shukovskaja, M. D., determination of the volatile matter in coke, B., 172.
- Schachtschabel, P., dehydration and rehydration of kaolin, A., 315.
- Schack, A., Wenzl, M., and Siemens & Halske Akt.-Ges., flow pyrometer, (P.), B., 270*.
- Schad, E., and Riess, C., use of iron and cobalt salts in the preparation of lacquers [for patent leather manufacture], B., 570.
- Shade, H., and Lohfert, H., ultra-violet Tyndall cone of pure water, A., 691.
- Shade, P. F., and Chemieprodukten Ges.m.b.H., protection of metal bodies from corrosive agencies, (P.), B., 1077*.
- Shade, W. See Rieke, R.
- Schaefer, C., Raman effect and infra-red spectrum for carbon tetrachloride and silicon tetrachloride, A., 522.
- Schaefer, C., and Bormuth, C., infra-red spectrum of sodium nitrate, A., 1090.
- Schaefer, C., Matossi, F., and Aderhold, H., polarisation of Raman radiation in crystals, A., 1344, 1499.
 Raman effect in crystals, A., 1499.
- Schaefer, C., and Pese, H., definition of saturation, A., 1230.
- Schaefer, E. See Loevenich, J., and White, C. B.
- Schäfer, E. H. See Witteimer, H.
- Schaefer, H., heating in a gaseous atmosphere, particularly in a reducing or oxidising atmosphere, (P.), B., 969.
- Schaefer, H. H. See Arny, H. V.
- Schäfer, O. See Ziegler, K.
- Schäfer, P. See Magistris, H.
- Schaefer, W., Pohl, W., and Keramische Industrie-Bedarfs Akt.-Ges., heating coal and similar furnaces, (P.), B., 803.
- Schaeffer, O., infra-red spectra of solid bodies, A., 12.
- Schaeffer, G. See Kahn, M.
- Schäffer, O., apparatus for expediting sugar factory analyses, B., 1126.
- Schäffler Maschinenfabr. Gebrüder, pasteurising apparatus for beer, wine, etc., (P.), B., 164.
- Schäffner, A. See Waldschmidt-Leitz, E.
- Schaefer, C. A., rendering gas-tight vessels for use at high temperatures or with increased or diminished pressure, (P.), B., 169.
- Schäfer, E. R., and Simmonds, F. A., physical and chemical characteristics of hemp stalks and of seed flax straw, B., 96.
- Schaffer, H., oil viscosimeter, B., 1095.
- Schaffer, J. C., and American Pine Products Corporation, distillation of resinous woods, (P.), B., 1139.
- Schaffer, J. M., disinfectant, antiseptic, and germicidal products, (P.), B., 968.
- Schaffernicht, W., excitation function of mercury lines, A., 830.
- Schaffernicht, W. See also Hanle, W.
- Schairer, J. F. See Bowen, N. L.
- Schalberova, A. V. See Oberhard, J. G.
- Schall, (Frl.) B. M. See Böttger, W.
- Schaller, W. T., gillespito, A., 570.
- Schally, E. See Emich, F.
- Schames, L., determination of absolute zero of temperature from coefficient of thermal expansion and compressibility of gases at low pressures, A., 144.
 absolute maximum of the integral Joule-Thomson effect, A., 144.
- Schantarovitch, P. See Danilov, S.
- Schanzer, S. (Wernicke & Beyer), production of motor fuels, (P.), B., 314, 408.
- Schapiro, I. A., graphite from Troitzkoje, A., 1017.
- Schapiro, S. A. See Isgarishev, N. A.
- Schaposchnikov, K., relation between the gas pressure and translational energy of the gas molecule, A., 404.
- Schaposchnikov, V. N., and Zacharov, J. P., reduction phenomena in the lactic acid fermentation, A., 376.
- Schapovalenko, A., drop method of detecting ferri- and ferrocyanide ions, A., 313.
 drop method of qualitative analysis for anions containing the cyanogen group, A., 562.
- Scharavski, P. V. See Nasledov, D. N.
- Scharff, G. E. See Imperial Chem. Industries, Ltd.
- Scharnberg, H. J. B., [ductile metal ring for] hydraulic piston packing, (P.), B., 933.
- Scharnov, B. See Kussmann, A.
- Scharnovsky, A. M. See Burkser, E. S.
- Scharrer, K., and Schropp, W., influence of increasing amounts of calcium sulphite and calcium sulphate on the germination and development of seedlings of cereals, B., 115.
- Schatalova-Zaleskaja, E. See Zaleski, V.
- Schattenstein, A. I., automatic cryostat, A., 1394.
- Schatunovskaja, E. F. See Sehilov, N. A.
- Schatunovskaja, H. See Sehilov, N. A.
- Schaub, F., manufacture of a packing composition for stuffing-boxes, etc., (P.), B., 400.
- Schaub, J. J., preparation of cellulose, particularly for nitration, (P.), B., 184.
- Schauder, E. See Arndt, F.
- Schauly, G., miner's safety lamp indicating the amount of fire-damp in the air, (P.), B., 598.
- Schaum, K., and Klein, Otto, microscopic and ultra-microscopic studies with microtome sections of photographic layers, A., 871.
- Schaum, K., and Scheidt, E. A., promotion of crystal formation by electrical action, A., 705.
- Schanmann, O., absorption, distribution, elimination, and photodynamic action of "rivanol," A., 1064.
- Schaumann, O. See also Ludwig, W.
- Schechter, A. See Leipunski, A. J.
- Schechtlowna, Z. See Chrzaszcz, T.
- Schechtmann, J., determination of intensity of X-rays by the ionisation method, A., 843.
- Scheer, J. van der. See Landsteiner, K.
- Scheff, G. See Fenyvessy, B. von.
- Scheffer, F. See Dirks, B.
- Scheffer, F. E. C. See Koers, J. H.
- Scheffer, L. See Ernst, E.
- Scheffers, H. See Meissner, W.
- Scheib, W., spectrum of boron monoxide, A., 395.
- Scheibe, G., and Lederle, E., dipole properties and displacement of absorption bands of homopolar molecules in solutions, A., 136.
- Scheibe, G., and Schnettler, O., quantitative analysis of emission spectra in any percentage without standard curves, A., 1391.
- Scheibe, G. See also Herzberg, G.
- Scheibe, K., decomposition and action of the nitrogen and carbon compounds in stall manure, B., 116.
- Scheibel, H. See Kremann, R.
- Scheiber, J., production of painting materials from castor oil, (P.), B., 726.
 production of lac [lacquer] products, (P.), B., 827.
 production of painting oils of improved drying capacity, (P.), B., 871.
- Scheiber, J. See also Chem. Fabr. J. Wiernik & Co. A.-G.
- Scheibler, H., Emden, A., and Krabbe, W., metallic compounds of the enolic forms of monocarbonyl compounds. XII. Substitution reactions of ethyl potassiophenylacetate, A., 1037.

- Scheibler, H., Emden, A., and Neubner, R., metallic compounds of the enolic forms of monocarbonyl compounds. XI. Condensation reactions of ethyl potassiumphenylacetate, A., 1037.
- Scheibler, H., Topouzada, H. T., and Schulze, H. A., *cis-trans*-isomeric β -mercaptocrotonic esters, desmotropio thioacetoacetic ester, and their derivatives. I., A., 67.
- Scheidegger, P. See Soc. of Chem. Ind. in Basle.
- Scheidemandel, H., and Scheidemandel, J., treatment of liquids with gases, (P.), B., 353.
- Scheidemandel, H. See also Scheidemandel, J.
- Scheidemandel, J., and Scheidemandel, H., manufacture of a heat-insulating material from gypsum, (P.), B., 715.
- Scheidemandel, J. See also Scheidemandel, H.
- Scheidhauer & Glessing Akt.-Ges., [suspension-type] furnace roofs, (P.), B., 747.
- Scheidt, E. A. See Schaum, K.
- Scheidt, E. O., and Foodstuffs Irradiation Co., Ltd., apparatus for treating liquids with ultra-violet rays; apparatus for producing ultra-violet rays, (P.), B., 429.
- Scheil, E., theoretical phase-rule principles of the duralumin-like ageing effect in ternary systems, A., 1373.
- Scheil, E., and Schulz, E. H., ternary system iron-carbon-oxygen, A., 701.
- Schellbach, cacao butter, B., 23.
- cacao oil, B., 23.
- Schellong, F., effect of oral administration of insulin and of various diets on the blood-sugar, A., 504.
- Schemel, J. See Schliephake, O.
- Schemjakin, F. M., morphology of chemical reactions in colloidal media. II., A., 33, 292*.
- Schenck, E. G., globin of animals and of healthy and diseased human beings; (dynamic constitution of haemoglobin), A., 948.
- Schenck, H., estimation of the reaction possibilities in steel production by the aid of physico-chemical principles, B., 991.
- Schenek, M., and Kirchhof, H., bile acids. XXV., XXVI., XXVII., and XXVIII., A., 89, 474, 915, 1435.
- Schenck, M. See also Curtius, T.
- Schenck, R., amylase content of the milk of various animals, A., 1204.
- Schenck, R., Franz, H., and Willeke, H., equilibria in reduction, oxidation, and carbonisation processes in iron. IX., A., 43.
- Schenck, R., and Wesselkock, H., activation of metals by addition of extraneous materials, A., 44.
- Schenck, V. See Traube, W.
- Schenk, M. See Bernoulli, A. L.
- Schenk, P. W. See Schwarz, R.
- Schenkel, K. See Siemens & Halske A.-G.
- Schepss, W. See I. G. Farbenind. A.-G. and Lieske, R.
- Scherer, M. See Cotton, A.
- Scherer, P. C., jun., and Hussey, R. E., factors during spinning which influence the physical properties of rayon, B., 812.
- Scherillo, A. See Ferrari, A.
- Scheringa, K., and Ahlrichs, J. W., analysis of soap containing water-glass, B., 1118.
- Schering-Kahlbaum Akt.-Ges., manufacture of active substances from vegetable organisms, (P.), B., 37.
- diminishing or preventing loss of carbohydrates in root-crops when stored, (P.), B., 75.
- manufacture of lactic acid esters, (P.), B., 95.
- manufacture of hydrogenation products, (P.), B., 136.
- manufacture of thymol and menthol, (P.), B., 218, 302.
- manufacture of [nuclear] alkylated phenols and their hydrogenation products, (P.), B., 275.
- manufacture of halogen-substituted aminobenzoic alkaline esters [local anaesthetics], (P.), B., 348.
- manufacture of anhydrous formic acid, (P.), B., 361.
- manufacture of compounds of *k*-strophanthidin, (P.), B., 394.
- manufacture of organo-metallic [iron] compounds, (P.), B., 556.
- manufacture of menthane, (P.), B., 604.
- manufacture of the hormone of the anterior lobe of the hypophysis, (P.), B., 741.
- manufacture of alkylene-substituted phenols, (P.), B., 808.
- manufacture of sexual hormones, (P.), B., 840.
- stabilisation and preservation of inulin in vegetable material, (P.), B., 879.
- manufacture of [nuclear] alkylated phenols, (P.), B., 940.
- manufacture of cyclic ketones, (P.), B., 981.
- manufacture of hormones from urine, (P.), B., 1004.
- Schering-Kahlbaum Akt.-Ges., manufacture of *C*-alkylated phenols, (P.), B., 1017.
- X-ray screens, (P.), B., 1047.
- manufacture of monobrominated menthane, (P.), B., 1059.
- preparation and separation of the hormones of the anterior lobe of the hypophysis and of the ovary, (P.), B., 1131.
- preparation of a pure hormone from the anterior lobe of the hypophysis, (P.), B., 1131.
- Schering-Kahlbaum Akt.-Ges., and Heyn, M., [preparation of] diguanidines, (P.), B., 409.
- Schering-Kahlbaum Akt.-Ges., Schoeller, W., and Allardt, H. G., production of anaesthetics, (P.), B., 793*.
- Schering-Kahlbaum Akt.-Ges., Schoeller, W., Jordan, H., and Clerc, R., production of menthol, (P.), B., 316*.
- Schering-Kahlbaum Akt.-Ges., Schoeller, W., and Schmidt, K., manufacture of nuclear iodination products of oxindole-3-propionic acid, (P.), B., 548.
- Schering-Kahlbaum Akt.-Ges., Schoeller, W., and Zöllner, C., manufacture of [alkyl β -halogenoethyl] ketones, (P.), B., 51*.
- Schering-Kahlbaum Akt.-Ges., Stephan, K., and Ulfers, F., manufacture of esters of the borneols, (P.), B., 550*.
- Schering-Kahlbaum Akt.-Ges. See also R  th, C.
- Schermerhorn, L. G. See Nightingale, G. T.
- Scherp, H. W. See Hyde, J. F.
- Scherrer, A., formation of crystalline metallic antimony in antimony fluoride bath used for fixing basic dyes on printed fabric, B., 415.
- Scherrer, J. A. See Freeman, J. R., jun.
- Scherrer, P. See Aharoni, J.
- Scherrer, W. See Stoll, M.
- Scherschnev, P. See Dumanski, A. V.
- Scherst  n, B. See Benni, B.
- Schertel, L., L  ty, W., and Goldschmidt Akt.-Ges., T., production of lead [mon]oxide in a state of high dispersion, (P.), B., 419*.
- Schertz, F. M., origin of chlorophyll and its relationship to the blood pigments, A., 381.
- Scherubel, E. F. See Taylor, Horace F.
- Schestakov, P. I., manufacture of condensation products of cresol and formaldehyde, (P.), B., 470.
- Schettle, J., Lapkin, N., and Perstnev, N., interaction of diphenylbenzylpyrnone and hydroxylamine. II., A., 93.
- Scheuer, M. See Kobel, M.
- Scheuerman, L. N. See Knipp, C. T.
- Scheuermann, F., manufacture of ethyl acetate free from alcohol, (P.), B., 275.
- Scheuermann, H. See Trautz, M.
- Scheunert, A., and Bischoff, H., nutritive value for rats of a pure flesh diet, prepared from raw, cooked, and autoclaved muscle, A., 638.
- Schewket, O., determination of alkali hydroxides in the presence of alkali carbonates or of ammonia, of iodides in the presence of chlorides and bromides and of mercuric salts, A., 1392.
- detection of carbon, hydrogen, and sulphur in organic compounds, A., 1460.
- determination of uric acid [in urine], A., 1467.
- Scheyer, H. See Gen. Aniline Works, Inc.
- Schicke, W. See Wedekind, E.
- Schidlof, A. See Berthoud, A.
- Schidrowitz, P., and Crockett, J. B., treatment of casein, (P.), B., 919.
- Schidrowitz, P., and Philpott, M., mineral black as a reinforcing filler [for rubber], B., 1121.
- Schieblich, M., production of vitamin-B by *Bacillus vulgaris* (Fl  gge), Migula, and by *B. mesentericus* (Fl  gge), Lehm. et Neum., A., 963.
- formation of vitamin-B by *B. mycoides*, Fl  gge, and *B. mycoides ruber*, Matzschita, A., 1481.
- Schiebold, E., structure of nepheline and analcite, A., 1099.
- crystal structure of feldspars, A., 1352.
- Schiebold, E., and Cardoso, G. M., regular intergrowth of staurolite with cyanite and their crystal structure, A., 140.
- structure of staurolite, A., 1352.
- Schiedewitz, H. See Paal, C.
- Schieferdecker, W. See G  tlier, A.
- Schiegries, E. See Paschke, M.
- Schiel, C. See Lottermoser, A.
- Schiemann, G., and Pillarsky, R. [with Sch  th, W.], aromatic compounds of fluorine. V. Difluorobenzenes; analytical observations, A., 201.
- Schiff, E. See Bernfeld, A., and Wilder, F. L.

- Schikorr, O., yellow ferric hydroxide sol, A., 1113.
ferric hydroxide in the rusting process, A., 1263.
iron oxides and hydroxides produced in the rusting of iron, B., 991.
- Schild, E. See Windisch, W.
- Schilde, H., distribution of loading in paper, B., 813.
- Schilde Maschinenbau-Akt.-Ges., B., drying apparatus for loose [textile] material, (P.), B., 320.
- Schildkötter, A. See Hanemann, H.
- Schill, E., and Fernbach, J. von, effect of posterior pituitary extract on respiratory metabolism, A., 1319.
- Schill, I., effect of adrenaline on the respiratory metabolism in exophthalmic goitre, A., 493.
- Schiller, A., [machine for] manufacture of [hollow] glassware, (P.), B., 948.
- Schilling, L. C., manufacture of a material for building, etc., from, e.g., Sorel cement or gypsum and bituminous substances, (P.), B., 864.
- Schilov, E. A., derivatives of triphenylethylene, and α -phenyl- $\beta\beta$ -diphenylethylene, A., 902.
- Schilov, N. A., activated charcoal, A., 1108.
- Schilov, N. A., Dubinin, M. M., and Toropov, S. A., mixed adsorbents, A., 407.
- Schilov, N. A., Lepin, L. K., and Vosnessenski, S. A., adsorption of a gaseous admixture from a current of air, A., 27.
- Schilov, N. A., and Schatunovskaja, E. F., action of inorganic salts on magnesium, A., 872.
- Schilov, N. A., Schatunovskaja, H., and Tschmutov, K., adsorption phenomena in solutions. XX. Chemical state of the surface of active charcoal, A., 1245.
adsorption phenomena in solutions. XXI. Surface oxides of carbon, A., 1364.
- Schilov, N. A., and Tschmutov, K., adsorption phenomena in solutions. XIX. "Gas-free" carbon as adsorbent, A., 991.
- Schindel, L. See Hentschel, H., and Schönheimer, R.
- Schindler, W., and Klanfer, K., colloid-chemical investigations of some tanning processes. I. and II., B., 678.
- Schindler, W., Klanfer, K., and Flaschner, E., neutralisation of one-bath chrome-tanned leather, B., 574.
- Schindler, W., and Schacherl, R., hydrolysis in aqueous dispersions of sulphonated oils, B., 725.
- Schingnitz, R., dissociation of strong electrolytes in non-aqueous solution, A., 1520.
- Schinz, C., production of printing plates by electrochemical processes, (P.), B., 153.
- Schipulina, O. P. See Schukov, I. I.
- Schirmacher, K. See General Aniline Works, Inc., Grasselli Dyestuff Corp., and I. G. Farbenind. A.-G.
- Schirmacher, W. See Gen. Aniline Works, Inc.
- Schirmann, (Frau) M. A., activation of metals in high vacuum to sorbents of any kind, including inert gases, A., 131.
- Schirmer, M. See Vaudin, L.
- Schischakov, N. A., hygroscopic properties of glass, A., 186.
- Schischakov, N. V. See Indenbaum, V. S.
- Schischkin, N., anhydrous aluminium alums, A., 720.
- Schischokin, V. P., concentrated solutions, A., 294.
hardness and pressure of flow of metals at different temperatures, A., 675.
hardness of metals and their alloys at various temperatures, A., 985.
- Schischokin, V. P., and Ageeva, V. A., hardness of metal alloys at different temperatures, A., 1510.
- Schittenhelm, A. See Eisler, B.
- Schlaepfer, H. A. See Bornand, E.
- Schläpfer, P., properties of tar-petroleum asphalt mixtures, B., 802.
- Schläpfer, P., and Brunner, M., polymerisation and thermal decomposition of acetylene, A., 1400.
- Schläpfer, P., and Hofmann, E., determination of carbon monoxide [in gases], B., 5.
- Schlage, W., rectification of raw spirit and the manufacture of absolute alcohol, B., 480.
- Schlapp, W. See Kleberg, J.
- Schlatter, C., compressibility of gases at 0° and below 1 atm., and their divergence from Avogadro's law. VI. Carbon monoxide, nitric oxide, and hydrogen chloride, A., 535.
- Schlatter, C. See also Batuecas, T.
- Schlatter, E. G., and Dip-It, Inc., [preparation of] non-aqueous dye-bath, (P.), B., 901.
- Schlatter, T., water-gas plants, (P.), B., 545.
- Schleber, V. See Krais, P.
- Schlecht, L. See I. G. Farbenind. A.-G.
- Schleede, A. See Jung, G.
- Schleich, H. See Bergmann, M.
- Schleicher, F. See I. G. Farbenind. A.-G.
- Schleicher, S., composition of the bath in Siemens-Martin furnaces at different depths, B., 990.
- Schlenk, W., and Bergmann, E., mechanism of the addition of sodium to double linkages, A., 590.
relationship between the degree of saturation of the ethylenic linking and its capacity for alkali metal addition, A., 591.
snapped hexaphenylacetone, A., 917.
- Schlenk, W., and Bergmann, E. [with Blum-Bergmann, O.], "disproportionate alkali metal addition" and the mechanism of the reaction, A., 591.
- Schlenker, E., extraction of bones with the vapour of solvents, B., 24.
examination of soaps containing salicylic acid for free salicylic acid, B., 1036.
- Schlesinger, H. I., and Rickles, D. N., complex compounds. II. Preferential removal of bromide ion from the co-ordination sphere, A., 178.
- Schlesinger, H. I., and Wörner, (Miss) R. K., complex compounds. I. Removal of ammonia from the co-ordination sphere, A., 178.
- Schlichenmaier, H. See General Aniline Works, Inc.
- Schliephake, O., Nagel, A. von, and Schemel, J., explosive combustion of ammonia in admixture with air, A., 547.
- Schliephake, O. See also I. G. Farbenind. A.-G.
- Schlimm, W. See Berkner, F.
- Schlinck, J., and Münchmeyer, G., manufacture of horn-like material, (P.), B., 520*.
- Schlivitch, S., photochemical transformations and photo-electric cells, A., 424.
- Schlivitch, S. See also Pringsheim, P.
- Schlobach Ges.m.b.H., F. See Werner, J.
- Schloemer, A. See Benrath, A.
- Schlesing, A. T., and Leroux, D., action of carbon dioxide in causing solution of soil phosphate, B., 580.
- Schlötter, M., production of easily soldered metal coatings, (P.), B., 721.
electrolytic deposition of heavy metals, [e.g., lead and copper], (P.), B., 722.
electrolytic processes and baths therefor, (P.), B., 824.
- Schlötter, M. See also Planner, B.
- Schlöttig, O. See Krauze, E.
- Schlossberg, J. B., and American Chain Co., Inc., puddling of iron, (P.), B., 17.
- Schlosser, F. See I. G. Farbenind. A.-G.
- Schlossmacher, K., absorption and refraction of red, blue, and violet spinels of Ceylon, A., 1267.
- Schlossmann, H., metabolism of lymphocytes, A., 808.
- Schlotterbeck, F., production of unimolecular aliphatic sulphuric acid compounds and polymerised sulphuric acid compounds [Turkey-red oils], (P.), B., 233.
- Schlubach, H. H., and Elsner, Horst, sinistrin A [dikévan] as product of the degradation of inulin, A., 456.
depolymerisation of inulin, A., 1415.
- Schlubach, H. H., and Gilbert, R., halogenoses of the β -series and their application to synthesis. V. β -Acetochlorogalactose and β -acetochloroxylose, A., 1412.
- Schlubach, H. H., and Prochownick, V., halogenoses of the β -series and their application to syntheses. VI. Crystalline halogenoacetyl derivative of β -galactose, A., 1412.
- Schlubach, H. H., and Schröter, G. A., numerical relationships in the fructose series, A., 456.
- Schlubach, H. H. See also Goos, F.
- Schlüter, must the air content of a pycnometer be taken into account in determining its tare in the determination of the sp. gr. of oils? B., 1054.
- Schlumpf, J., mechanically moving skeins of yarn during treatment with liquids, (P.), B., 1107.
- Schmalz, H., diacetyl and acetyl-methylcarbinol in human urine? A., 947.
biochemical relations between formaldehyde, sugars, and plant acids, A., 1324.
- Schmalz, H., and Barthmeyer, H., action of light on melanin and pyrocatechol substance in the skin-skeleton of beetles, A., 111.
post-mortal production of melanin in meal-worm insects (*Tenebrio molitor*, L.), A., 1217.

- Schmalfuss, H., and Barthmeyer, H., diacetyl as the constituent causing the odour of provisions and other materials, B., 301.
microchemical tests for phenolic substances in the exoskeleton, A., 1307.
- Schmalfuss, H., and Barthmeyer, H. [with Brandes, H.], melanins, A., 508.
- Schmalfuss, H., and Werner, H., Auer's gas coagulation theory; drying process of drying oils, B., 25.
- Schmalfuss, H. See also Jantzen, E.
- Schmalfuss, K., and Mothes, K., enzymic deamination by *Aspergillus niger*, A., 959.
- Schmandt, W., [detection of adulteration in] cacao butter, B., 23.
- Schmanenkov, I. V. See Britzke, E. V.
- Schmeller, M. See Bamann, E.
- Schmelling, con. See Lemmermann, O.
- Schmelzbasalt-Akt.-Ges., and Trenzen, C., acid-resisting cement, (P.), B., 61.
- Schmick, H. See Jung, G.
- Schmid, A., and Metropole Developments, Ltd., [solid depolarising electrolyte for] primary electric cells and batteries, (P.), B., 428.
manufacture of objects [of high gloss] by moulding plastic masses of condensation products, (P.), B., 572.
manufacture of light-emitting elements for electric lamps, (P.), B., 724.
- Schmid, A., and Winkelmann, W., potential [at metallic electrodes] in electrolytes with foreign ions. I., A., 705.
- Schmid, E., deformation and solidity of materials, A., 1506.
- Schmid, E., and Vaupel, O., experiments with moistened rock-salt crystals, A., 985.
- Schmid, E. See also Boas, W., Fahrenhorst, W., Nix, F. C., and Rupp, E.
- Schmid, F. See Ambard, L., and Vanino, L.
- Schmid, Franz, physical tests of pigments, B., 248.
- Schmid, G. See Lutz, H. E. W.
- Schmid, Gerhard, calculation of velocity coefficients. II., A., 1377.
- Schmid, H., physical measurements with short-lived intermediate products, A., 1127, 1395.
- Schmid, H. See also Abel, E.
- Schmid, H., influence of magnetic fields on the lines of the NO β -bands and the doublet character of the NO δ -bands, A., 133.
intensity relationships of NO bands, A., 395.
nitric oxide δ -bands, A., 1235.
- Schmid, R., Farkas, D. von, and König, T., nitric oxide β - and γ -bands, A., 1235.
- Schmid, W., importance of circulation of liquor in the wood-pulp cooker, and means of producing it, B., 183.
cooking-heat and its economical use in cellulose works, B., 455.
- Schmid, W. E. See Weyer, F.
- Schmider, K. See Simon, A.
- Schmidt, effect of soil and of manuring on the incidence of "take-all" (*Opheobolus graminis*) in wheat, B., 1124.
- Schmidt, A. See Berl, E., and Janek, A.
- Schmidt, Albert, thermodynamic treatment of explosive reactions. III., B., 641.
- Schmidt, A. A., mechanism of the action of insulin, A., 1479.
methods of dialysis, A., 1550.
- Schmidt, A. G. See Shriner, R. L.
- Schmidt, B., determination of the orientation of crystals by means of the Laue diagram and stereographic projection, A., 19.
- Schmidt, B. See also Sauerwald, F.
- Schmidt, C., coating material for the handles of utensils, (P.), B., 469.
- Schmidt, C. L. A., Appleman, W. K., and Kirk, P. L., apparent dissociation constants of tryptophan and histidine, A., 292.
apparent dissociation constants of arginine and of lysine; apparent heats of ionisation of certain amino-acids, A., 1250.
- Schmidt, C. L. A. See also Dalton, J. B., Goss, H., Hoskins, W. M., Miyamoto, S., Rawlins, L. M. C., and Smythe, C. V.
- Schmidt, E., and Hönn, C., determination of the calcium sulphate content of tower liquors, B., 141.
- Schmidt, E. (Posen). See Korczynski, A.
- Schmidt, Eduard, soils derived from the glacial boulder-marl in the Hamburg district, A., 1017.
- Schmidt, Erich, Jandebeur, W., and Meinel, K., integral relationship between the cellulose and the sparingly soluble xylan in the structural element of red beech (*Fagus sylvatica*). II., A., 584.
- Schmidt, Erich, Meinel, K., Nevros, K., and Jandebeur, W., integral relationship between cellulose and the less soluble xylan in the structural element of red beech (*Fagus sylvatica*), A., 457.
- Schmidt, Erich, Tang, Y. C., and Jandebeur, W., preparation of skeletal substances from incrustated cell walls of plants by means of chlorine dioxide, A., 1325.
- Schmidt, Erich. See also Page, I. H.
- Schmidt, Ernst, electrical resistance furnaces, B., 1116.
- Schmidt, E. G., phenylation of oleic acid, A., 772.
- Schmidt, F., purification and softening of water, (P.), B., 688.
- Schmidt, Ferdinand, spectral excitation distribution of phosphorescence bands at different temperatures, A., 839.
- Schmidt, Fritz, hardening of condensation products from phenols and aldehydes, (P.), B., 69, 780.
preparation of artificial horn from alcohol-insoluble albumin and nitrocellulose, (P.), B., 207.
- Schmidt, F. L. See Vercin. Chem. Werke A.-G.
- Schmidt, G. See Keesom, W. H.
- Schmidt, Gerhard. See Embden, G.
- Schmidt, G. A., safety devices for electric light and power plant in chemical works, B., 465.
- Schmidt, H., production of electrolytic deposits [of metals or alloys], (P.), B., 199.
production of compact chromium deposits from molten electrolytes, (P.), B., 290.
- Schmidt, H. (Marburg), and Gross, H., effect of electrolytes in physiological salt solution on the titre of hæmolytic amboceptors, A., 103.
- Schmidt, Hans, and Winthrop Chemical Co., Inc., [manufacture of] formaldehyde-bisulphite [derivatives of] aminoaryl antimony compounds [stibinic acids], (P.), B., 755*.
- Schmidt, Harry, optically active pinocarveol. I. and II., A., 217, 921.
- Schmidt, H. A. See Fasold, H.
- Schmidt, H. H., and Pretschner, F., determination and separation of silver chloride [from photographic layers] by sedimentation; nature and origin of the high silver values, B., 586.
gravimetric determination of excess silver in photographic layers, B., 587.
"halogen value" of silver iodide emulsions, its determination and photographic interpretation, B., 929.
nomenclature of "silver and halogen values" in photographic layers, B., 929.
- Schmidt, H. W. See Harteck, P.
- Schmidt, J. H., and Bakelite Corporation, production of polybasic acid-polyhydric alcohol resin, (P.), B., 677.
- Schmidt, K. See Schering-Kahlbaum A.-G.
- Schmidt, Karl, gas producer for the gasification of ligneous fuel, (P.), B., 449.
- Schmidt, Karl, and Pyrene-Minimax Corporation, production of a dry mixture of chemicals suitable for preparing fire foam, (P.), B., 224.
- Schmidt, Karl. See also Gen. Aniline Works, Inc.
- Schmidt, Kurt. See Chem. Fabr. auf Aktien vorm. E. Schering.
- Schmidt, K. F., and Zutavern, P., production of imino-ethers, (P.), B., 939.
- Schmidt, K. F. See also Knoll A.-G. Chem. Fabr., and Knoll & Co.
- Schmidt, L., manufacture of bornyl and isobornyl esters, (P.), B., 394.
- Schmidt, M. (Schmidt Elektrotechnische- & Metallwarenfabr., M.), anode battery [with interchangeable dry batteries], (P.), B., 153.
- Schmidt, Max, testing of sheet metal for deep drawing, B., 104.
- Schmidt, M. P., Krieger, W., and Kalle & Co., Akt.-Ges., manufacture of light-sensitive materials, (P.), B., 588*.
manufacture of light-sensitive layers, (P.), B., 641*, 742*.
- Schmidt, M. P., Zahn, R., Krieger, W., and Kalle & Co., Akt.-Ges., preparation of pictures to be produced by tanning action, (P.), B., 794*.
- Schmidt, M. P. See also Gen. Aniline Works, Inc.
- Schmidt, O. See I. G. Farbenind. A.-G.
- Schmidt, O. T., sugars with branched carbon-chains. I. Constitution of the sugar from hamamelitannin, A., 197.
constitution of Chinese tannin, A., 608.

- Schmidt, *P.*, energy production and distribution in the working up of brown coal, (P.), B., 804.
- Schmidt, *R.* See Busch, *M.*, and Evers, *F.*
- Schmidt, *R. B.*, Stein, *Berthold*, and Bamberger, *C.*, 1:4:1'4'-tetrahydroxy-2:2'-dianthraquinonyl and furans derived therefrom, A., 477.
- Schmidt, *R. E.* See Gen. Aniline Works, Inc.
- Schmidt, *S.*, effect of various salts on the stability of diphtheria toxin, A., 1220.
 rôle of the electrolyte in the diphtheria toxin-antitoxin reaction; coagulation of the purified toxin in presence of various salts, A., 1220.
- Schmidt, *S.* See also Linderström-Lang, *K.*
- Schmidt, *T.* See Simon, *A.*
- Schmidt, *W.*, carbon dioxide supply to plants, B., 259.
 effect of different fertilisers on the reaction of strongly acid soils, B., 833.
- Schmidt, *Walter*. See Hanekop, *G.*
- Schmidt, *Winfried*, Röntgenographic examination of the iron-manganese system, A., 148.
- Schmidt, *W. N.* See Tschelincev, *V. V.*
- Schmidt Elektrotechnische & Metallwarenfabr., *M.* See Schmidt, *M.*
- Schmidt Ges.m.b.H., *K.*, [silicon]-aluminium alloys [for pistons], (P.), B., 1076.
- Schmidt Ges.m.b.H., *K.* See also Salzwerk Heilbronn A.-G.
- Schmidt-Nielsen, *Signe*, and Schmidt-Nielsen, *Signal*, liver oils yielding a strong colour reaction with antimony trichloride, A., 255.
 antirachitic vitamin in the [liver oils of] elasmobranchs, A., 1222.
- Schmidt-Nielsen, *Signal*. See Schmidt-Nielsen, *Signe*.
- Schmidt'sche Heissedampf-Ges.m.b.H., heat transferers, (P.), B., 124.
 heat-exchangers, (P.), B., 352.
- Schmieder, *F.*, measurement of the effective cross-section of gases and vapours, A., 1337.
- Schmierer, *E.* See Thurm, *R.*
- Schmieschek, *U.*, hypersensitising with peroxide and silver salts, B., 793.
- Schmiking, *M.* See I. G. Farbenind. A.-G.
- Schmitt, *B.* See Berl, *E.*
- Schmitt, *G.*, modern apparatus for the detection of gases and vapours in air, B., 43.
- Schmitt, *H.* See Lorenz, *R.*
- Schmitt, *K. O.* See I. G. Farbenind. A.-G.
- Schmitt, *L.*, nutrient ratios and reaction condition of weathered soils of the crystalline Odenwald, B., 207.
- Schmitt, *P. W.*, determination of theophylline and ethylenediamine-theophylline, B., 1090.
- Schmitt, *V.* See Bergmann, *M.*
- Schmitz, *A.*, structure of haemocyanin, A., 1304.
- Schmitz, *A.* See also Abderhalden, *E.*
- Schmitz, *C.*, and Ramesohl & Schmidt Akt.-Ges., centrifugal dome with condensing arrangement, (P.), B., 125.
- Schmitz, *C.* See also Ramesohl & Schmidt Akt.-Ges.
- Schmitz, *E.*, and Kimmelstiel, *P.*, effect of injections of brain-phosphatides on avitaminosis-B in pigeons, A., 1221.
- Schmitz, *E.*, and Koch, *F.*, blood-phosphatides in lipemia caused by bleeding, A., 1208.
- Schmitz, *H. L.* See Glover, *E. C.*
- Schmitz, *R.*, electric furnace [for dental purposes], (P.), B., 774.
- Schmitz-Dumont, *O.*, and Nicolajannis, *B.*, polymerisation of indole. I. Preparation of di-indole, A., 618.
- Schmolke, *H.*, thermodynamical experiments on supercooled phases, A., 1356.
 dissociation of hydrogen and its effect on the temperature of the acetylene welding flame, A., 1370.
- Schmorl, *K.*, elements in cereal grains, B., 963.
- Schmücking, *A.*, and Krupp Akt.-Ges., *F.*, [centrifugal] separator drum, (P.), B., 400*.
- Schmuk, *A.*, phenylcarbamido derivative of aminoglucose, A., 585.
 polyphenols of tobacco, A., 1628.
 inositol in tobacco, A., 1628.
- Schmuk, *A.*, and Kaschirin, *S.*, content of formic acid in tobacco, A., 1628.
 content of methyl alcohol in tobacco and its manufactured products, B., 120.
- Schmuk, *A.*, and Piatnicki, acids of tobacco. II., A., 1628.
- Schmuklovskaja, *L. G.* See Gabel, *J. O.*
- Schmutz, *F. C.*, and Palmer, *F. C.*, drying of exterior paints under various weather conditions and over different woods, B., 203.
- Schmutz, *F. C.*, Palmer, *F. C.*, and Kittelberger, *W. W.*, special primers for house paints, B., 1038.
- Schmutz, *F. C.* See also Nitchie, *C. C.*
- Schneck, *A.*, change in the refractive index [of the serum] during the souring of milk, B., 214.
- Schneck, *A.*, and Görgel, *B.*, "alkali number" of the ash of cows' milk, with special reference to fodder and the lactation period, B., 739.
- Schneck, *A.*, and Kohlhardt, *G.*, dispersoid-chemical study of milk. II. Determination of the degree of dispersion of fat in milk, A., 1204.
- Schneible, *C. B.* See Schneible, *J.*
- Schneible, *J.*, Schneible, *C. B.*, and Schreier, *K. F.*, whole-grain flour, etc., (P.), B., 530.
- Schneider, *A.* See Dhéré, *C.*
- Schneider, *E.* See Widmann, *E.*
- Schneider, *F.* See Benedetti-Pichler, *A.*
- Schneider, *Frank*. See Whitmore, *W. F.*
- Schneider, *F. A.* See Jahr, *K. F.*
- Schneider, *G.* See Dreyfus, *C.*
- Schneider, *H.* See Soc. of Chem. Ind. in Basle.
- Schneider, *H. C.*, and Fairbanks, Morse & Co., grinding machine, (P.), B., 692.
- Schneider, *J.* See Forrer, *R.*
- Schneider, *O.* See Rollett, *A.*
- Schneider, *P.* See Deuts. Ton & Steinzeug-Werke A.-G.
- Schneider, *W.* See Riesser, *O.*
- Schneider, *Wilhelm* (Jena), and Becker, *M.*, Walden inversion in glucoside fission, A., 327.
- Schneider, *Wilhelm* (Ludwigshafen). See Gen. Aniline Works, Inc.
- Schneider & Cie, percussion fuses for projectiles, (P.), B., 534.
- Schneiderhan, *K.* See Gerlach, *W.*
- Schneiderhöhn, *H.*, lead-zinc and pyrites ores of the Deutsch-Bleischarley mine, Upper Silesia, A., 733.
- Schneidewind, *R.*, commercial chromium-plating, B., 287.
- Schneidler, *R.*, corundum and silicon carbide, B., 948.
- Schnellbach, *W.*, and Rosin, *J.*, solubility determinations of U.S.P. chemicals, A., 285.
- Schnepf, *J.* See Siemens-Schneckerwerke A.-G.
- Schnettler, *O.*, influence of foreign gases on selective reflexion of the mercury resonance lines, A., 1490.
- Schnettler, *O.* See also Scheibe, *G.*
- Schneitzler, *K.*, line spectra of crystals [potassium permanganate and potassium chlorate], A., 1332.
- Schneider, *A.* See Fichter, *F.*
- Schnitzspahn, *K.* See Gen. Aniline Works, Inc.
- Schnuck, *C. F.*, rubber mills and Banbury mixers, B., 1080.
- Schnurmunn, *R.*, conductance of water irradiated with X-rays, A., 1375.
- Schocken, *K.*, ionisation of gases by short-wave X-rays, A., 1335.
- Schöbel, *W.*, extraction apparatus with [fritted] glass filter-plates, A., 185.
- Schöbl, *O.*, laboratory testing of germicides and chemotherapeutic agents, B., 393.
- Schoeller, *W.* See Chem. Fabr. auf Aktien vorm. E. Schering and Schering-Kahlbaum Akt.-Ges.
- Schoeller, *W. R.*, and Webb, *H. W.*, analytical chemistry of tantalum, niobium, and their mineral associates. XVI. Tartaric hydrolysis. XVII. Quantitative precipitation of the earth acids and certain other oxides from tartrate solution, A., 184.
- Schöllkopf, *K.*, manufacture of toluene and propylene from cymene, (P.), B., 981.
- Schöllkopf, *K.*, Serini, *A.*, and Rheinische Kampfer Fabrik Ges.m.b.H., manufacture of inactive menthol, (P.), B., 1046*, 1091*.
- Schönberg, *A.*, and Stolpp, *T.*, organic compounds of sulphur. XVII. Sulphur analogues of hexaphenylthane and triphenylmethyl, A., 1577.
- Schönberg, *A.*, and Vargha, *L. von*, organic compounds of sulphur. XVI. Thermal transformation of thiocarbonic esters into thiolcarbonic esters, A., 320.
- Schönberg, *A.*, Vargha, *L. von*, and Paul, *W.*, organic compounds of sulphur. XVIII. Thermal rearrangement of thiocarbonic esters into thiolcarbonic esters. II. Formation of disulphides from phenols, A., 1574.

- Schoenberg, G., preparation of anhydrous perborates, (P.), B., 861.
- Schoenebeck, O. von. See Grassmann, W.
- Schönfeld-Reiner, R., hydrolysis of peptones and polypeptides by the enzymes of the pancreas, A., 1476.
- Schönfelder, R. See Gluud, W.
- Schönfeldt, N., electrokinetic potential of diaphragms, A., 411.
- Schönfeldt, N. See also Hiller, W.
- Schöneimer, R., significance of plant sterols for animal organisms. VIII. Sterol balance in the laying hen, A., 108.
- migration of hydrogen in cholesterol, A., 1577.
- significance of saturated sterols in the organism. II. Quantitative separation of unsaturated and saturated sterols.
- III. Detection and identification of dihydrocholesterol as impurity in body-cholesterol, A., 1616.
- Schöneimer, R., and Behring, H. von, significance of saturated sterols in the organism. V. Can saturated sterols be resorbed? VI. Excretion of saturated sterols, A., 1616.
- Schöneimer, R., Behring, H. von, and Hummel, R., hydrogenation of cholesterol in the organism, A., 493.
- significance of saturated sterols in the organism. IV. Saturated sterol content of the sterols from various organs, A., 1616.
- specificity of the resorption of sterols, depending on their constitution, A., 1617.
- Schöneimer, R., Behring, H. von, Hummel, R., and Schindel, L., significance of saturated sterols in the organism. I., A., 1616.
- Schönheimer, R., and Hummel, R., ester resorption, A., 1617.
- Schönhöfer, F. See Schulemann, W.
- Schoenöva, (Mlle.) J. See Dzięwowski, K.
- Schoep, A., mineralogy of the precious stones, A., 187.
- Schoepfle, C. S., and Ryan, J. D., polymerisation of *as*-diphenyl-ethylene; preparation of 1:1:3-triphenyl-3-methylhyrindene, A., 1568.
- Schoetzow, R. E. See Deripe, F. van.
- Schofield, F. H., electric-resistor furnace, A., 1305.
- Schofield, K. R. See Keen, B. A.
- Schofield, M., oils from English hardwood tar, B., 173.
- Schofield, R. K., and Blair, G. W. S., influence of the proximity of a solid wall on the consistency of viscous and plastic materials, B., 351.
- Schofield, T. H. See Rosenhain, W.
- Schofield, W. R., jun., Milner, R. D., and Leeds & Northrup Co., control of proportions of components of gaseous mixtures, (P.), B., 888.
- Scholefield, F., the Ostwald colour system, B., 222.
- Scholefield, F., Denner, N., and Burgess, Ledward & Co., Ltd., obtaining lustre and matt effects on yarns or fabrics composed wholly or in part of viscose in the sulphur state, (P.), B., 238*.
- Scholefield, F., and Goodyear, E. H., action of light on cotton dyed with certain vat dyes, B., 505.
- Scholefield, F. See also Blakeley, J. D.
- Scholes, S. R., density factors for soda-lime glasses, B., 144.
- Scholl, R., and Böttger, O., anthraquinhydrone and anthraquinhydronecarboxylic acids, A., 1438.
- blue, carboxylated anthraquinol- α -carboxylactones (II) and the formation of dicyclic, condensed lactol- β -carboxylic acids therefrom, A., 1588.
- Scholl, R., and Böttger, O. [with Horn, J.], behaviour of anthraquinonecarboxylic acids towards sodium hyposulphite; anthranol- α -carboxylactones, A., 1589.
- Scholl, R., and Böttger, O. [with Keller, A., and Meyer, H. K.], carboxylated, blue anthraquinol- α -carboxylactones, A., 1439.
- Scholl, R., and Lamprecht, H., anthraquinonecazine and anthraquinoneazhydriin, A., 1439.
- Scholl, R. See also Fürth, O.
- Schollenberger, C. J., colorimetric determination of soil reaction, B., 524.
- effect of leaking natural gas on the soil, B., 524.
- determination of carbonates in soil, B., 1123.
- Schollenberger, C. J., and Dreibelis, F. R., effect of cropping with various fertiliser, manure, and lime treatments on the exchangeable bases of plot soils, B., 631.
- analytical methods in base-exchange investigations on soils, B., 1082.
- Scholtze, H. See Bruchhausen, F. von.
- Scholz, A., highly active fuller's earth, B., 56.
- production of decolorising charcoal, (P.), B., 229.
- Scholz, Hans. See Pohl, E.
- Scholz, Hellmut. See Freudenberg, K.
- Scholz, K. See Ehrenthal, B. P. von.
- Scholz, P., making reversible concentrates from natural milky juices, e.g., [rubber] latex, (P.), B., 27.
- Scholz, V., and Atlas Ago Chemische Fabrik A.-G., preparation of linoxyn or similar materials, (P.), B., 998.
- coating, plastic, impregnating, adhesive, and similar compositions, (P.), B., 998.
- Schommer, W. See Dilthey, W.
- Schoner, K. See Brass, K.
- Schoonover, J. See Fosbinder, R. J.
- Schoop, M. U., metallising of combustible materials [by the spraying process], B., 196.
- Schoorl, N., colorimetric methods, A., 309.
- comparison of analyses by specific gravity and refraction.
- I. Solutions of phenol in water, A., 679.
- comparison of analyses by specific gravity and refraction.
- II. Solutions of hydrogen peroxide in water, A., 724.
- spirit of camphor, B., 82.
- Schopt, C. See Boehringer, A.
- Schorigin, P. P., and Sokolova, A. M., nitration of toluene in the side-chain, A., 1030.
- Schorlemmer, K., manufacture and application of fat products in the leather industry, B., 573.
- Schormüller, A. See Fischer, Hans.
- Schorn, E. J., quinoline-hydrogen peroxide reagent; a distinguishing colour test for aloes, B., 485.
- Schorn, H., incorrodible aluminium alloy, (P.), B., 334*.
- Schorstein, H. See Jander, G.
- Schotsman, J. See Nieuwenburg, C. J. van.
- Schotsmans, H. See Bernier, M.
- Schottky, H. See Strauss, B.
- Schottky, W., and Deutschmann, W., mechanism of rectification in the cuprous oxide rectifier, A., 142.
- Schottky, W. See also Duhme, E.
- Schotzky, K. F., spectroscopy of ultra-soft X-rays, A., 1229.
- Schotzky, K. F. See also Boehm, G., and Seemann, H.
- Schou, S. A., and Jacobsen, A., preparation and analysis of iodinated scsámé oil, B., 348.
- Schou, S. A., and Nielsen, J. B., petrolatum liquidum, B., 263.
- Schouls, (Mlle.) G., dynamic azotropism, A., 1106.
- Schouls, (Mlle.) G. See also Lerberghe, G. van.
- Schrader, H. See Tammann, G.
- Schrader, O. See Schroeter, G.
- Schrader, T., absorption of potash and phosphoric acid by cereals in early growth, A., 120.
- Schrader, T. See also Kleberger.
- Schramm, E. See Wiessmann, H.
- Schramm, H. See Hein, F.
- Schramm, W. See Malkomesius, P.
- Schraps, P. C., cyanide process of treating ores containing precious metals, (P.), B., 151.
- Schrauth, W., and Newport Manufacturing Co., hydrogenation of naphthaleno, (P.), B., 136*.
- Schrauth, W. See also Schroeter, G.
- Schreckenthal, (Frl.) G., manganese and iron enrichment in diluvial gravels of the Marchfeld, A., 1398.
- Schreiber, E. See Holtz, F., and Verein Stahlwerke A.-G.
- Schreiber, H., quantitative chemical analysis by means of X-ray emission spectra, A., 19.
- Schreiber, W. T., Geib, N. V., Wingfield, B., and Acree, S. F., semi-commercial production of xylose, B., 1084.
- Schreier, K. F. See Schneible, J.
- Schreinemakers, F. A. H., membrane and osmosis. I.—VI., A., 153, 288, 409, and 688.
- osmosis of liquids. III., A., 408.
- osmosis in systems containing also liquids with constant compositions. I., A., 992.
- Schreiter, R., nuclei containing vanadium, bleached spots, and bleached zones in the clay slates of the Saxony Rothliegendes, A., 1396.
- Schrempf, A. See Deuts. Luftfilter-Bauges. m.b.H.
- Schrempf, W. See Lüers, H.
- Schrenk, H. H. See Yant, W. P.
- Schrenk, O., testing and calibration of the new Kämpf viscosimeter, B., 844.
- Schrenk, O. See also Kämpf, A.
- Schrenk, W. T., and Ode, W. H., determination of silica in presence of fluor spar, B., 55.

- Schreus, H., and Schulze, K., potentiometric and colorimetric determination of p_{H_2} in serum, A., 102.
- Sebrihaux, factors influencing the value of wheat in baking, B., 437.
- Schriever, W. See Kranss, F.
- Schrimpe, C. F., and Bakelite Corporation, preparation of [resinous] condensation products of acetylene and phenols, (P.), B., 958.
- Schrimpf, A., nitrostarch [explosives], B., 929.
- Schrobsdorff, W., production of metal alloys and of articles made thereof, (P.), B., 200*.
- Schroeder, E., electric welding process, (P.), B., 380.
- Schröder, E., and Van Deurs, J. A. S., mechanical production of froth, (P.), B., 224.
- Schröder, H., coke oven, (P.), B., 894*.
- Schroeder, H. See also Merrill, H. B.
- Schroeder, J. von, determination of sulphuric acid in leather, B., 574.
- Schröder, K., volumetric determination of hydrothiocyanic acid with permanganate, A., 1392.
- Schroeder, M., recovery of gas constituents from gas mixtures, (P.), B., 408*.
- Schröder, T. See Loevenich, J.
- Schröder, W., reciprocal salt pair $MgSO_4-2NaNO_3-H_2O$. III.—VI., A., 163, 294.
isotherms of the system $MgSO_4-Na_2SO_4-H_2O$ between 0° and 100°, A., 294.
- Schrödinger, E., indefinite characteristic spectra, A., 267.
- Schroeder, E. See Vorländer, D.
- Schröer, E., and Balandin, A. A., light reactions of tin halides and their analytical application, A., 727.
- Schröter, F., and Lubszynski, G., inertia of gas-filled photoelectric cells, A., 1491.
- Schroeter, G. [with Gluschke, A., Götzky, S., Huang, J., Irmisch, G., Laves, E., Schrader, O., and Stier, G.], oxime transformations in the ketotetrahydronaphthalene series, A., 1039.
- Schroeter, G., and Gluschke, A., manufacture of alicyclic lactones of hydrogenated aromatic polycyclic series of hydrocarbons [vermicides], (P.), B., 362.
- Schroeter, G., Schrauth, W., and Newport Manufacturing Co., hydrogenation of naphthalene, (P.), B., 136*.
- Schröter, G. A. See Goos, F., and Schlubach, H. H.
- Schröter, H. See Gessner, O.
- Schröter, J., production of ferricyanides, (P.), B., 373.
- Schröter, K., Wolff, H., and Krupp Akt.-Ges., F., manufacture of bodies for tools, etc., from materials such as carbides, the alloys thereof, etc., (P.), B., 868*.
- Schröter, K. See also Gen. Electric Co.
- Schröter, W., photolysis of diazo-compounds, A., 554.
- Schropp, W. See Scharer, K.
- Schroth, W., experiences with large "double-gas" [mixed coal and water-gas] generators, B., 749.
- Schryver, S. B., and Thomas, E. M., nitrogenous constituents of wort and their assimilation by yeast, B., 117.
- Schtschukina, M. N. See Tschitschibabin, A. E.
- Schubardt, W. See I. G. Farbenind. A.-G.
- Schubart, F., heat-exchange apparatus, (P.), B., 124.
- Schubert, E. See I. G. Farbenind. A.-G.
- Schubert, F. W., and Brysilka, Ltd., manufacture of artificial silk, and apparatus therefor, (P.), B., 1106*.
- Schubert, M. See I. G. Farbenind. A.-G.
- Schubnikov, L., preparation of single crystals of bismuth, A., 671.
- Schubnikov, L., and De Haas, W. J., increase in resistance produced magnetically in monocrystals of bismuth at low temperatures, A., 675.
change of resistance of bismuth crystals in the magnetic field at the temperature of liquid hydrogen, A., 985, 1102.
dependence of the electrical resistance of single crystals of bismuth on the purity of the metal, A., 985.
change in the resistance of bismuth crystals in a magnetic field at the temperature of liquid nitrogen, A., 1102.
new phenomenon in the change of resistance in a magnetic field of single crystals in bismuth, A., 1353.
- Schuch, F., rotating, externally-heated drum furnace for production of sulphate from salt and acid or hydrogen sulphate, (P.), B., 324.
- Schuch, W. See Hahn, G.
- Schnhardt, A., attrition mill, (P.), B., 1008.
- Schuck, G. See Stather, F.
- Schübel, K., and Manger, J., pharmacology of some *p*-hydroxybenzoic acid esters: their fate in the organism and toxicity, A., 111.
toxicology of *p*-chlorobenzoic acid and its sodium salt ("microbin"), A., 111.
- Schüler, H., excitation of spectra for the investigation of hyperfine structure, A., 126.
possible interpretations of the hyperfine structure of the mercury spectrum, A., 1490.
- Schüler, H., and Brück, H., hyperfine structure and nuclear moment, A., 124.
- Schueler, E., dyeing [with oxidation dyes], (P.), B., 101.
- Schuppen, J. See Gall, H.
- Schürmann, E., and Böhm, W., antimony pentasulphide, B., 710.
- Schütt, W. See Klemm, W., and Schiemann, G.
- Schuette, H. A., and Alder, H., composition of *Castalia odorata*, *Najas flexilis*, and stonewort, A., 826.
- Schuette, H. A., and Hale, J. T., physical constants of monoacetin, monopropionin, and mono-*n*-butylin, A., 890.
- Schuette, H. A., and Templin, V., application of the formal titration to honey, B., 391.
- Schuette, H. A., and Terrill, J. N., determination of laevulose with cupro-potassium carbonate solution, B., 388.
- Schuette, H. A., and Thomas, R. W., *n*-valerolactone. II. Vapour pressure, A., 891.
composition of fat of silver-black fox, A., 1056.
n-valerolactone. III. Preparation, A., 1272.
- Schuette, H. A., Thomas, R. W., and Duthey, M., brazil-nut oil, B., 1162.
- Schuette, H. A. See also Harvey, E. H.
- Schütz, E. See Herpen, A. T.
- Schütz, L. See Berendes, R.
- Schütz, P., detection of lead and copper salts in citric and tartaric acids by the official (D.A.B. VI) method, B., 36.
- Schütz, P. See also Matthes, H.
- Schütz, W., intensity and natural width of the blue caesium doublets. I., A., 1330.
- Schütza, H. See Wartenberg, H. von.
- Schütze, M. See Brigl, P.
- Schuffan, P., and Gesellschaft für Linde's Eismaschinen Akt.-Ges., separation of gas mixtures, (P.), B., 933*.
- Schuh, A. E. See Harkins, W. D.
- Schulkin, N. I. See Zelinski, N. D.
- Schukarev, A., and Vereschagin, L., variation of the *E.M.F.* of zinc under the action of light, A., 985.
- Schukarev, S. A., Kosman, S. K., and Kosman, O. M., mud deposits of Lake Saki, A., 1015.
- Schukarev, S. A., and Müller, R. L., electrical conductivity of glasses; system $B_2O_3-Na_2O$, A., 1511.
- Schukarev, S. A., and Tolmatscheva, T. A., colloid-chemical theory of origin of salt lakes, A., 1155.
- Schulek, E., decomposition products of sodium thiosulphate solution, A., 725.
iodometric determination of small quantities of silver, especially in presence of chlorides, bromides, and cyanides, A., 1543.
purification and testing of the paraldehyde of the German pharmacopoeia, B., 639.
- Schulemann, W., Kropp, W., and Winthrop Chemical Co., Inc., aminoalkylamino-derivative of aromatic aminohydroxy- or polyamino-compounds, (P.), B., 586*.
- Schulemann, W., Schönhöfer, F., Mietzsch, F., and Winthrop Chemical Co., [manufacture of] 8-amino-6-alkoxyquinolines, (P.), B., 349*.
- Schulemann, W., Schönhöfer, F., Winkler, A., and Winthrop Chemical Co., manufacture of pharmaceutical products, (P.), B., 349*, 741*.
aminoalkylation of amines, (P.), B., 1060*.
- Schuler, R. See Davis, H. S.
- Schulman, J. H., new method of examination of surface films, A., 687.
- Schulte, E. See I. G. Farbenind. A.-G.
- Schulte, M. J., colorimetric determination of tryptaphavin and rivanol, A., 1304.
sensitive colour reaction for rivanol, and its application, B., 882.
- Schulte, W. B. See Burgess Battery Co.
- Schulte-Overbeck, fertilisation with carbon dioxide and its importance for the coal industry, B., 342.
- Schultes, H. See Schwab, G. M.
- Schultes, T. See Peters, H.
- Schultz, A. S. See Hill, A. J.

- Schultz, C. T., photochemical dissociation; decomposition of hydrogen chloride in total and in monochromatic ultra-violet light. I. and II., A., 46, 173.
- Schultz, E., and Schultz, E. L., recovery of motor fuel from crude oil, shale, lignite, coal, and other organic material, (P.), B., 701.
- Schultz, E. L. See Schultz, E.
- Schultz, E. S., Gratz, L. O., and Boude, R., effect of seed-potato treatment on yield and *Rhizoctonia* in N.E. Maine in 1925—1928, B., 632.
- Schultz, E. W., and Banham, F. D., new mechanical disintegrator, A., 1549.
- grinder and disintegrator, (P.), B., 1050.
- Schultz, J. W., calculation of latent heats of vaporisation of the normal paraffin hydrocarbons, using specific heat data, A., 1103.
- Schultz, L. J., use of buffer citrate solution as a diluent and preservative for red blood-cells, A., 1200.
- Schultz, O., standardisation of preparations containing vitamin-D, B., 37.
- Schultze, G., and Müller, Eugen, active hydrogen. III. Lead hydride, A., 302.
- Schultze, G. See also Wartenberg, H. von.
- Schultze, H., and Gross, H., fractionation and concentration of hæmolytic immune-sera, A., 103.
- Schultze, H. S. See I. G. Farbenind. A.-G.
- Schultz, K., capillarity. XII. Evaporation factors, A., 29.
- capillarity. XIII. Behaviour of true and colloidal solutions in capillaries on evaporation, A., 416.
- capillarity. XIV. Migration of salts in gels in consequence of evaporation, A., 857.
- Schultze, W., treatment of talloel [tall oil], (P.), B., 292.
- Schulwas-Sorokina, R. D., is it possible to determine the piezo-electric constant at high temperature by the statical method? A., 280.
- Schulz, and Parlow, influence of the dry summer of 1929 on the tenacity of potato flour, B., 478.
- influence of cold on the tenacity of potato starch, B., 635.
- determination of the tenacity of starch, B., 835.
- Schulz, E. See Goldschmidt, S., and Roginski, S.
- Schulz, E. H., "white rust" on galvanised ironware, B., 422.
- chemical methods of testing zinc coatings on sheet and wire, B., 1070.
- principles governing the testing of steel for its resistance to corrosion, B., 1071.
- Schulz, E. H., and Bonsmann, F., properties of cast silicon steel, B., 329.
- Schulz, E. H. See also Carius, C., and Scheil, E.
- Schulz, F., ultimate analysis of coal, B., 889.
- Schulz, F., and Prunet, J., crystallisable phenols of brown-coal tar, B., 496.
- Schulz, G. See Thiel, A.
- Schulz, Gustav, and Mengele, H., separation of phenol mixtures, especially those obtained from brown-coal tar, B., 547.
- Schulz, H. See Menzel, H.
- Schulz, H. F., applying nitrocellulose varnishes, (P.), B., 1164*.
- Schulz, H. J., accurate Cochius viscosimeter, A., 186.
- Schulz, F., phosphorus in the blood and urine, A., 808.
- Schulz, L. See Blumann, A.
- Schulz, W. F. See Gilman, H.
- Schulze, A., supposed allotropy of bismuth, A., 1355.
- transformation points in metals [zinc, bismuth, thallium, and cobalt], B., 1073.
- Schulze, A. See also Steinwehr, H. von.
- Schulze, B., testing paper for bursting strength, B., 707.
- Schulze, F. See Gilman, H.
- Schulze, H. A. See Scheibler, H.
- Schulze, K. See Schreus, H.
- Schulze, R. W., oxide inclusions as cause of working difficulties in copper half-stuffs, B., 899.
- Schulze, W., application of microchemical reactions in the problem of calcification in osteogenesis, A., 808.
- Schulze, W. A. See Poth, E. J.
- Schumacher, application of graphical methods in the gas industry, B., 749.
- new methods in the manufacture of gas by suitable combination of standard arrangements, B., 1053.
- Schumacher, E. E., and Bouton, G. M., age-hardening lead-calcium alloys, A., 987.
- Schumacher, E. E., Bouton, G. M., and Ferguson, L., effect of small quantities of third elements on the ageing of lead-antimony alloys, B., 148.
- Schumacher, F. G., and Müller, J. J., machine for dyeing, bleaching, etc., of loose yarns or bobbins, (P.), B., 815.
- Schumacher, H. J., energy of activation of bimolecular reactions, A., 1000.
- mechanism of photochemical decomposition of ozone, A., 1004.
- photochemical decomposition of nitrogen peroxide, A., 1004.
- influence of nitrogen dioxide on the ignition temperature of hydrogen-oxygen mixtures, A., 1127.
- chain reactions; (A) remarks on a paper by Lenher and Rollefson on the kinematics of carbonyl chloride; (B) mechanism of formation and decomposition of ethylene iodide, A., 1255.
- decomposition of nitrogen peroxide at low pressures, A., 1255.
- effect of nitrogen peroxide on the explosion temperature of mixtures of oxygen and hydrogen, A., 1377.
- Schumacher, H. J., and Sprenger, G., velocity of unimolecular decomposition of a simple gas, A., 166.
- thermal decomposition of ozone, A., 425.
- decomposition of nitrogen pentoxide at low pressures, A., 708.
- Schumacher, H. J., and Stieger, G., chlorine hexoxide, A., 48.
- thermal decomposition of chlorine dioxide, A., 708.
- Schumacher, H. J. See also Lewis, B.
- Schumacher'sche Fabrik G.m.b.H. See Müller, Josef.
- Schumann, K., examination by Neubauer's seedling method of the phosphate- and potash-intake of different plants from air-dried and heated soils of varying acidity, B., 208.
- Schumann, R., creatine and creatinine metabolism in the dog, A., 243.
- Schumb, W. C., and Hunt, H., chemical reactions induced by the electrodeless discharge, A., 1382.
- Schumb, W. C., and Young, R. C., reaction of hydrogen bromide with silicon, A., 720.
- Schumb, W. C. See also Hunt, H., Marvin, G. G., and Seward, R. P.
- Schumm, O., formation of hæmin derivatives by pyrogenic reactions. IV. Degradation of hæmin to ætiomesoporphyrin and optoporphin; preparation of optoporphin from pyratin chloride; spectro-chemical reaction of ætioporphyrins with sulphuric acid, A., 96.
- Schundler, H. O., distillation of solids carrying carbonaceous materials, (P.), B., 936.
- Schupp, H. See Kohorn, O. von.
- Schupp, O. E. jun. See Harned, H. S.
- Schur, G., direction distribution of photo-electrons of the L shell, A., 391.
- Schur, G. See also Sommerfeld, A.
- Schur, M. O. See Richter, G. A.
- Schurecht, H. G., and Pole, G. R., method of measuring strains between glazes and ceramic bodies, B., 863.
- Schurman, J., and Fernelius, W. C., nitridation. I. Introduction. II. Mercuric and bismuth nitrides as nitridising agents, A., 1032.
- Schurtz, D. D., use of borax in manufacture of tank glasses, B., 663.
- Schusselé, W. See Duparc, L.
- Schuster, C., influence of sediment on yeast and fermentation, B., 211.
- Schuster, C. See also Dohse, H.
- Schuster, F., action of hydrogen peroxide on thiocyanates, A., 442.
- determination of oxygen in coal, B., 747.
- mineral constituents of coal and their influence on the determination of ash, B., 847.
- sulphate content of coal ash, B., 847.
- Schuster, L., semi-ethers of benzpinacol, A., 1576.
- Schuster, L. See also Löwenbein, A.
- Schuster, L. W., effect of contamination by nitrogen on the structure of electric welds, B., 1069.
- Schuster, M. G., separation of cobalt and nickel for determination of these metals, A., 445.
- Schustov, A., separation of solids from liquids, (P.), B., 125.
- Schutz, J. M., and Centrifex Corporation, [stationary] centrifugal apparatus, (P.), B., 932.
- Schutz-Mensing, L., coupling broadening of spectral lines, A., 831.
- Schutz-O'Neill Co. See O'Neill, B. A.
- Schving, P., preparation of cyclohexylbenzene and its homologues, (P.), B., 500.
- Schwab, E. See Abderhalden, E.
- Schwab, E. H. See Bodansky, M.
- Schwab, G. M., simple acid to vacuum distillation, A., 447.
- possible relationship between heats of activation and activity of contact catalysis. II., A., 551.
- rule for the investigation of chain reactions, A., 1000.

- Schwab, G. M., and Heyde, U., photochlorination of chloroform, A., 1004.
- Schwab, G. M., and Kneoll, H., rate of a reaction at the interface between two solutions, A., 688.
- Schwab, G. M., and Schultes, H., action of mixed catalysts in the decomposition of nitrous oxide, A., 1257.
- Schwab, G. M. See also Cremer, E.
- Schwab, G. W., and Schweizer, F. J., jun., case-hardening process, (P.), B., 18.
- Schwabe, K. See Müller, Erich.
- Schwabe, R. See Lautenschläger, C. L.
- Schwaebel, F. X. See Wacker Ges. f. Elektrochem. Ind. G.m.b.H., A.
- Schwaebel, G. See I. G. Farbenind. A.-G.
- Schwaibold, J., iodinated proteins, A., 639.
- iodine content of fresh, air-dried, and fermented tobacco leaves, A., 823.
- Schwalbe, C. G., utilisation of low-grade timber and waste wood, B., 104.
- manufacture of cellulose derivatives, (P.), B., 184.
- manufacture of sulphite-wood cellulose and waste liquors therefrom, B., 317.
- Schwalbe, C. G., and Neumann, K. E., bark of the young woods of spruce, pine, and red beech, B., 757.
- Schwalbe, C. G. See also I. G. Farbenind. A.-G.
- Schwamberger. See Mittasch, A.
- Schwardt, H. H., borax as an insecticide for protecting seed, B., 785.
- Schwartz, A. See Hückel, W.
- Schwartz, C., and Schwartz, P., [printing] reserves under aniline black on wool, B., 415.
- Schwartz, C. See also Trenzen, C.
- Schwartz, G. L. See Du Pont de Nemours & Co., E. I.
- Schwartz, K. W. See Siemens & Halske A.-G.
- Schwartz, P. See Schwartz, C.
- Schwartz, Paula, reducing power of a mixture of two kinds of sugar in equal concentrations, A., 1306.
- Schwarz, Alfred, combined process of distilling, cracking, and gas-making, and apparatus therefor, (P.), B., 133.
- Schwarz, Alfred, and Coal & Oil Products Corporation, production of enriched water-gas, (P.), B., 804.
- gas-making apparatus, (P.), B., 1139.
- Schwarz, Alfred, and Petroleum Sand Products Corporation, oil-cracking process, (P.), B., 1013.
- Schwarz, Anton, working up mixed shavings of white metal and red metal, (P.), B., 151*.
- Schwarz, Edgar. See Hackspill, L.
- Schwarz, Erik, avoiding losses of solvent in the [acetate] silk industry and methods of solvent recovery, B., 367.
- Schwarz, E. I. See Kremann, R.
- Schwarz, F. See Lottermoser, A.
- Schwarz, G., methylene-blue reduction. I.—III., A., 112.
- Schwarz, Karl. See Gross, P.
- Schwarz, Kurt. See Braun, J. von.
- Schwarz (Miss) M. A. See Bernardi, A.
- Schwarz, O., Brinell, Rockwell, and scleroscope hardness of non-ferrous metals, B., 1074.
- Schwarz, R., lipemeter fat test for determining fat and oils in fat-bearing materials, press cake, or refuse, B., 1036.
- Schwarz, R., and Giese, H., germanium. III. Sulpho- and pergermanates, A., 720.
- germanium. V. Complex compounds of germanium, A., 1537.
- Schwarz, R., and Lewinsohn, M., germanium. IV. Systems Na_2GeO_3 — Na_2SiO_3 and K_2GeO_3 — GeO_2 , A., 721.
- Schwarz, R., and Schenk, P. W., germanium. II. Compounds of germanium with nitrogen, A., 437.
- Schwarz, S. C. See Ripley, R. R.
- Schwarz, S. L. See Bryant, F. L.
- Schwarzacher, W. See Berg, F. R.
- Schwarzberg, B., and Gindis, P., lactic acid bacteria from tan liquors, B., 206.
- Schwarz von Bergkamp, E. See Bergkamp, E. S. von.
- Schwarze, W. See Weissberger, A.
- Schwarzenbach, G., apparatus for determining potentials of cells with very high internal resistance, A., 1526.
- activity of protons and electrons in any solvent, A., 1526.
- measurements of potential of the hydrogen electrode in solutions of acids in other, A., 1526.
- Schwarzenbach, G. See also Bradley, W., and Robinson, R.
- Schwarzwalderwerke Lanz G.m.b.H., absorption cooling devices, (P.), B., 846.
- Schweitzer, F. See Abderhalden, E.
- Schweitzer, F. L. See Sabalitschka, T.
- Schweitzer, H. See Jost, W.
- Schweitzer, Hans, charging of small suspended particles in the corona discharge, A., 271.
- Schweitzer, Hans. See also Kopfermann, H.
- Schweitzer, Hugo. See Gen. Aniline Works, Inc.
- Schweitzer, O. See Staudinger, H.
- Schweizer, C., laboratory determination of the baking value of wheat flour, B., 345.
- Boulard's process for arresting fermentation at a desired stage, B., 436.
- bleaching of flour, B., 437.
- detection of rye flour in wheat flour, B., 437.
- bacterial detection of foreign honey, B., 438.
- experiments with heat-precipitated horse-flesh protein as precipitogen, B., 438.
- determination of age of eggs by the aid of hydrogen-ion concentration measurements, B., 927.
- Schweizer, F. J., jun. See Schwab, G. W.
- Schweizer, G., physiological-morphological studies of *Funaria hygrometrica*, L., in pure culture, A., 818.
- Schweiner, E. See Straus, F.
- Schwenk, E., and Hauenschild, A., charging apparatus for vertical kilns for burning cement, lime, etc., B., (P.), 559.
- Schwenker, F. F., determination of haemoglobin; haemoglobino-meter, A., 1304.
- Schwenzer, K. See Rheinboldt, H.
- Schwieger. See Rewald, B.
- Schwietzer, A. See Maschinenfabr. Imperial Ges.m.b.H.
- Schwingel, C. H., and Williams, J. W., variation of dielectric constant with temperature. I. Electric moments of the carbon disulphide and nitrous oxide molecules, A., 666.
- Schwinning, W., and Fischer, F., influence of temperature on the impact strength and hardness of aluminium alloys, B., 286.
- Schwittay, G., [use of] sodium peroxide in ascertaining the condition of used insulation oils, B., 6.
- Schwyzer, J., manufacture of formaldehyde and of some of its pharmaceutical derivatives, B., 216.
- modernisation of a wood-distillation plant, B., 401.
- manufacture of diethylbarbituric acid, B., 439.
- manufacture of guaicol and phenacetin, B., 685.
- manufacture of hydrogen peroxide and X-ray ingestion material, B., 658.
- manufacture of synthetic borneol and synthetic camphor, B., 1141.
- Sciaccia, N. See Romeo, G.
- Scientific and Industrial Research, Department of, atmospheric pollution, B., 1132.
- Scislawski, W., properties of resistance cellules, A., 1345.
- Seiver, A. See Rideal, E. K.
- Skell, O., anisotropy of the electrical resistance of mercury crystals, A., 1507.
- Scotfield, C. S., and Wilcox, L. F., boron content of oranges, A., 1326.
- Scotfield, S. W., and La Rue, J. B., separation of the constituents of mineral silicates, (P.), B., 712.
- Scott, A. B., and Hamilton, C. S., arsenation of aromatic aldehydes, A., 1601.
- Scott, A. B. See also Jacobs, W. A.
- Scott, A. F., and Durham, E. J., solubility of soluble electrolytes. II. Solubility of the alkali and alkaline-earth bromides in hydrobromic acid, A., 537.
- solubility of soluble electrolytes. III. The solubilities and densities of saturated solutions of the bromides and iodides of sodium and potassium between 0° and 92°, A., 1107.
- solubility of soluble electrolytes. IV. Salt volumes in solution and the contraction of solvent, A., 1362.
- Scott, A. F., and Johnson, C. R., at. wt. of chlorine; ratio $\text{NOCl} : \text{Ag}$, A., 129.
- at. wt. of vanadium, A., 1084.
- at. wt. of chlorine; solubility of silver chloride, A., 1337.
- Scott, A. H. See Curtis, H. L.
- Scott, A. W., adaptation of the diphenylcarbazide test for mercury to the scheme of qualitative analysis, A., 54.
- component heat exchanges in the evaporative condenser, B., 397.
- Scott, D. A., and Glaister, D., action of saponin on antitoxin, A., 115.
- Scott, E. W. See Marvel, C. S., and Runde, M. M.

- Scott, *F. H.* See Loncks, *M. M.*
 Scott, *F. L.*, and Hughes Tool Co., production of a hard surface on [cutting] tools, etc., (P.), B., 18.
 Scott, *G. L.* See Gen. Chem. Co.
 Scott, *H. M.* See Wilkinson, *E. J.*
 Scott, *H. T.* See Steenbock, *H.*
 Scott, *J.* See Gulland, *J. M.*
 Scott, *J. S.*, control of phenol tastes [in water] by means of increased lime treatment, B., 1048.
 Scott, *J. W.*, and Western Electric Co., Inc., electrolytic system [for recovery of metals], (P.), B., 1159.
 Scott, *L. G.* See Bell, *C. E.*
 Scott, *L. K.* See Long, *J. S.*
 Scott, *M. R.*, and Bausch & Lomb Optical Co., [non-tarnishing] optical glass, (P.), B., 1111.
 Scott, *R.* See Imperial Chem. Industries, Ltd.
 Scott, *R. D.*, removal of phenolic tastes in water supplies, B., 1048.
 Scott, *R. W.* See Corson, *B. B.*
 Scott, *S. W.*, Fred, *E. B.*, and Peterson, *W. H.*, products of the thermophilic fermentation of cellulose, A., 1218.
 Scott, *S. W.* See also Peterson, *W. H.*
 Scott, *T. J.* See Federal Phosphorus Co.
 Scott, *W.*, interpretation of results of chemical analyses for gas works, B., 545.
 Scott, *Winfield*, and Rubber Service Laboratories Co., manufacture of derivatives of aldehyde-amino reaction products [vulcanisation accelerators], (P.), B., 603.
 vulcanisation of rubber, (P.), B., 1040, 1081.
 rubber-vulcanisation accelerator, (P.), B., 1081.
 manufacture of rubber vulcanisation accelerators, (P.), B., 1165*.
 Scott, *Winfield*. See also North, *C. O.*
 Scott, *W. A.* See Film Cooling Towers (1925), Ltd.
 Scott, *W. D.* See Farmer, *E. H.*
 Scott, *W. E.* See Robinson, *P. L. L.*
 Scott, *W. W.*, and Davis, *N. E.*, detinning of scrap tinplate, B., 951.
 Scott, *W. W.*, and Jewel, *P. W.*, determination of carbon dioxide in carbonates, B., 372.
 Scottish Dyes, Ltd. See Barnes, *R. S.*, Dandridge, *A. G.*, Drescher, *H. A. E.*, Duckworth, *S. W.*, Dunworth, *J. F.*, Fairweather, *D. A. W.*, Hooley, *L. J.*, Loveluck, *R. J.*, Smith, *W.*, Thomas, *J.*, Tonkin, *R.*, Wilson, *J. S.*, Woodcock, *W. G.*, and Wylam, *B.*
 Scott-Moncrieff, *R.*, natural anthocyanin pigments. I. Magenta flower pigment of *Anurhinum majus*. II. Magenta flower pigment of *Primula polyanthus*, A., 967.
 Seovill Manufacturing Co., and Belfit, *R. W.*, manufacture of aldehyde-amino-resinous compounds, (P.), B., 339.
 Scrase, *F. J.*, thermal and elastic properties of clinvar, B., 105.
 Scribner, *B. F.* See Meggers, *W. F.*
 Scripture, *E. W.*, jun. See Barnitt, *J. B.*
 Séailles, *J.*, manufacture of alumina by a wet process, B., 141.
 Seaman, *C. F. N.* See Brinjes & Goodwin, Ltd.
 Searell, *G. W.* See Hart, *Ralph*.
 Searle, *G. O.* See El Kelaney, *M. A.*
 Searle, *H. E.* See McKay, *R. J.*
 Sears, *G. R.* See Kraemer, *E. O.*
 Sears, *R. W.* See Smith, *A. W.*
 Sehor, *J.*, J. Thomsen's isodynamic principle and W. Thomson's rule, A., 1253.
 Seibrell, *L. B.* See Goodyear Tire & Rubber Co.
 Secchi, *I.* See Bozza, *G.*
 Seek, *W.*, and Erba Akt.-Ges., manufacture of sulphonated oils, fats, fatty acids, and waxes, (P.), B., 25*.
 Seek, *W.* See also Ullmann, *G.*
 Second, *F. A.*, drying of materials [e.g., timber], (P.), B., 1050.
 Sédallian, *P.*, and Clavel, (*Alme.*), use of precipitated diphtheria toxin in the preparation of anti-diphtheria serum, A., 1068.
 Sédallian, *P.* See also Leulier, *A.*
 Seddon, *H. R.*, and King, *R. O. O.*, fatal dose for sheep of cyanogenic plants containing sambunigrin or prunasin, A., 812.
 Sedlacek, cadmium pigments, B., 676.
 Sedlmayr, *R.* See General Aniline Works, Inc., and Kränzlein, *G.*
 Sedykh, *A.*, decomposition of fat by tubercle bacilli, A., 1623.
 Seede, *J. A.* See Brit. Thomson-Houston Co., Ltd.
 Seefried, *H.* See I. G. Farbenind. A.-G.
 Seeholzer, *V.*, purification [of vapours in distillation] apparatus, (P.), B., 694.
 Seel, *H.*, effects and secondary effects of irradiated ergosterol, A., 647.
 Seel, *H.*, pharmacology of the acid oxidation products of cholesterol and ergosterol, A., 954.
 Seeley, *A.*, gas-producing apparatus, (P.), B., 1139.
 Seeley, *G. A.*, and Western Electric Co., Inc., mixing apparatus [for alloys], (P.), B., 106.
 Seeliger, *S.*, distilling oils by means of a metal bath, (P.), B., 179.
 Seeliger, *S.*, cracking of oils, (P.), B., 450.
 Seeliger, *R.*, theory of light emission of canal rays, A., 390.
 Seeliger, *R.*, and Handt, *T.*, disordered movement of electrons in gases, A., 7.
 Seeliger, *R.*, and Wulffhekel, *H.*, mechanism of the arc light. III. Arc discharge at low pressures, A., 1077.
 loss of material from the cathode of a metallic arc, A., 1229.
 Seemann, *H.*, new X-ray spectrograph with absolute zero determination without a divided circle, and the zero method of Cornu, A., 669.
 optics of reflexion of X-rays in crystals. III. Depth of penetration, mosaic structure, line width, resolution, and blackening distribution of the spectrum, A., 1229.
 Seemann, *H.*, optics of reflexion of X-rays in crystals. IV. Complete spectral diagrams, A., 1502.
 Seemann, *H.*, Gallitelli, *P.*, and Kantorowicz, *O.*, avoidance of contamination of the anticathode during the working of an analysis X-ray tube, A., 138.
 Seemann, *H.*, and Kantorowicz, *O.*, complete spectral diagram of a single crystal, A., 982.
 Seemann, *H.*, Kantorowicz, *O.*, and Schotzky, *K. F.*, complete spectral diagrams of crystals, A., 982.
 Seemann, *H.*, and Schotzky, *K. F.*, X-ray spectra by means of cinematography, oscillography, and fluorescence, A., 138.
 X-ray oscillography, A., 299.
 Seemann, *H. J.*, electrical conductivity of fused silica, A., 676.
 magneto-chemistry of the dia- and para-magnetic metals and alloys, A., 1100.
 electrical conductivity of Cu₂Au alloys at low temperatures with and without superstructure, A., 1245.
 Seferiadis, *B.*, manufacture of cigarette paper, (P.), B., 414.
 Segal, *B.*, crystallisation of lactose in sweetened condensed milk, B., 1002.
 Segré, *E.*, anomalous dispersion in band spectra, A., 389.
 statistical calculation of the spectrum of an ionised atom, A., 1077.
 intensity of lines in the Raman effect in diatomic molecules, A., 1345.
 Seguin, (*Mle.*) *L.* See François, *M.*
 Sehnoutka, *J.* See Travers, *A.*
 Sehr, *E.*, enzyme activity of mummified muscle, A., 362.
 Seib, *J.* See Holzverkohlungs-Ind. A.-G.
 Seibert, *F. B.*, composition of the active principle of tuberculin. XII. Precipitin tests and differentiation of various tuberculin and timothy-bacillus proteins, A., 1219.
 Seidenfeld, *M. A.* See Tainter, *M. L.*
 Seidl, *K.* See Wulff, *P.*
 Seifert, *R.* See Rojahn, *C. A.*
 Seil, *G. E.*, preparation of highly-activated iron oxide, (P.), B., 905.
 Seil, *G. E.*, Heiligman, *H. A.*, and Witherow, *C. N.*, chemistry and physics of the combustion of gaseous fuels; burner design and combustion of fuels in industrial furnaces, B., 356.
 Seith, *W.* See Hevesy, *G. von*.
 Seitz, *W.*, and Harig, *G.*, law of blackening of the photographic plate by electron streams, A., 174.
 Seitz-Werke Ges.m.b.H., sulphurisation of wine, etc., in bottle, (P.), B., 213.
 Seki, *K.* See Yoshino, *E.*
 Sekiguchi, *R.*, chemical changes in the blood in experimental sunstroke, A., 949.
 Sekito, *S.*, and Matsunaga, *Y.*, X-ray study of the nickel-chromium system, A., 1245.
 Sekitoo, *T.*, effect of bile acids on urinary salt excretion, A., 812.
 influence of bile acids on calcium metabolism, A., 1314, 1616.
 "Selbi" (Société d'Exploitation de Licences de Brevets Industriels, manufacture of yeast, (P.), B., 582.
 Selden Co., and Jaeger, *A. O.*, catalytic oxidation of organic compounds, (P.), B., 9*, 807.
 catalytic reduction of oxides of carbon and organio oxygen compounds, (P.), B., 94.
 carrying out of catalytic reactions, (P.), B., 493.
 purification of crude aromatic hydrocarbons [anthracene, phenanthrene], (P.), B., 604.

- Selden Co., and Jaeger, A. O., catalytic ammonia synthesis, (P.), B., 660.
 contact sulphuric acid process, (P.), B., 660, 765*.
 catalytic apparatus, (P.), B., 690.
 catalytic molecular association [esterification] of organic compounds, (P.), B., 705.
 catalytic oxidation of [impure] ammonia, (P.), B., 764, 862*, 946*.
 plastic or coating compositions, (P.), B., 828.
 catalytic removal of hydrogen or oxygen-containing [carbonylic] groups from organic compounds, (P.), B., 855.
 [vapour-phase] catalytic apparatus, (P.), B., 932.
 reducing the products of carbon monoxide, (P.), B., 939.
 purification of aromatic hydrocarbons, (P.), B., 940.
 catalytic oxidation of ammonia, (P.), B., 946.
 [catalytic] oxidation of acenaphthene, acenaphthylene, and their substitution products, (P.), B., 1143.
- Selden Research & Engineering Corporation. See Canon, F. A., Jaeger, A. O., and Pietzsch, K. F.
- "Selenophon" Licht- & Tonbildges. m.b.H., selenium cell, (P.), B., 775.
- Seliber, G., effect of different amounts of toluene on the fermentation of sugar by fresh and dried yeast, A., 1318.
- Seligman, L. See Drigenko, C. T.
- Seligman, R., plate heat-exchange apparatus employing condensable gas or fluid, (P.), B., 490.
 removal of incrustation formed on metallic surfaces, (P.), B., 671*.
 plate apparatus for heat exchange, (P.), B., 690.
 cooling or heating apparatus particularly applicable to viscous fluids, (P.), B., 969.
- Seligmann, M., utilisation metabolism of proteus bacilli, A., 1622.
- Seligson, N., brucine and strychnine salts of inositolphosphoric acids, A., 469.
 compounds of inositolphosphoric acids with molybdic acid, A., 823.
- Selke, W., continuous automatic evaporation of large quantities of liquid in small vessels, A., 1154.
 simple electrode apparatus for measuring the hydrogen-ion concentration of soils; the quinhydrone-calomel electrode, B., 295.
 nitrogen losses from "kalkammonsalpeter" by the volatilisation of ammonia, B., 734.
- Selle, H., calibration of cordeau detonant for measuring time in the Dautriche method of determining detonation velocities, B., 84.
 sensitiveness to detonation and velocity of explosion of gelatin dynamite, B., 218.
- Sellers, H. M. See Nellen, A. H.
- Sellés, E., new compounds of pyrocatechol with tervalent iron, A., 84.
- Selma, S., combustion of liquid fuel, (P.), B., 232.
- Selman, R. F. W., kinetics of the interaction of esters with potassium alkyl oxides in alcohol-water mixtures. II. Reaction between potassium ethoxide and ethyl propionate in ethyl alcohol-water mixtures, A., 300.
- Selski, L., recovery of paraffin wax absorbed by fuller's earth, B., 6.
- Seltz, H., and Silverman, L., determination of acidity of oils and fats by the quinhydrone electrode in non-aqueous solutions, B., 248.
- Seltzer, J. M., and Marshall, F. F., loss of tannin in liquors due to fermentation, B., 679.
- Selvig, W. A. See Denny, E. H.
- Selwood, P. W., new line in the absorption spectrum of samarium, A., 830.
 deformation of electron shells. I. Absorption spectrum, molecular volume, and refraction of neodymium perchlorate, A., 1235.
 rare earths. XXXIV. Spectrographic determination of impurities therein, B., 372.
- Selwyn, H. H. See Shutt, F. T.
- Selyakov, N. Y. See Kaminski, E. Z.
- Sem, M. O., Söderberg, C. W., and Norske Aktieselskab for Elektrokemisk Industri of Norway, manufacture of self-baking electrodes, (P.), B., 723.
- Semejkin, B. See Barabachev, N.
- Semencov, A. P., stereochemistry of derivatives of methane and ethylene, A., 190.
- Semencov, A. P., experimental test of the theory of geometrical stereochemistry, A., 276.
 stereochemistry of compounds with quinquivalent nitrogen, A., 277.
- Semenov, N., condensation and adsorption, A., 851.
- Semenov, N., and Shechter, A., transition of kinetic into vibrational energy by collisions with particles, A., 1341.
- Semenov, N. See also Frenkel, J., and Kopp, D.
- Semet-Solvay Engineering Corporation, Hughes, C. H., and Steere, F. W., production of combustible gas, (P.), B., 1101.
- Semet-Solvay Engineering Corporation, and Steere, F. W., generation of steam from waste industrial gases, particularly in water-gas plants, (P.), B., 931.
- Semet-Solvay Engineering Corporation. See also Steere, F. W.
- Semichon, L., pure fermentation of wines by the so-called "fermentation superquatre" method of [yeast] selection, B., 78.
 physiological selection of ferment by alcohol, B., 344.
- Semichon, L., and Flanzky, M., acid substances entering into the composition of wines, B., 389.
 determination of [ethyl] alcohol [by chromic oxidation], B., 1001.
- Semmes, H. H. See Barker, M. E.
- Semmes, M. F. See Larkum, N. W.
- Semon, W. L., and Damerell, V. R., [preparation of] dimethylglyoxime, A., 746.
- Semon, W. L., Sloan, A. W., and Craig, D., surface application of age-resisters to vulcanised rubber versus mill incorporation prior to vulcanisation, B., 1080.
- Semon, W. L. See also Goodrich Co., B. F.
- Sen, A. K. See Sen, R. N.
- Sen, B. M., rotating electron in a beam of light, A., 9.
- Sen, D. C. See Ray, P. C.
- Sen, H. K., and Basu, U., heterocyclic compounds. VI. Synthesis of tetrahydroacridones, A., 1046.
- Sen, H. K., and Neogi, N. C., heterocyclic compounds. V. Condensation of cyclohexylidene cyclohexanone with cyanoacetamide, A., 1045.
- Sen, K. C., Ray, A. C., and Mitra, N. N., hæmolysis, A., 802.
- Sen, K. C. See also Chakravarti, S. N.
- Sen, M., synthesis of tetrahydroxanthones, A., 479.
 syntheses in the triazino series, A., 481.
- Sen, N. K., jute seeds; *Corchorus capsularis*. III. Chemical composition, A., 826.
- Sen, P. B., fixing action of certain dehydrated chemical reagents, A., 358.
- Sen, R. N., and Chakravarti, D., coumaro-a-pyrones, A., 219.
 mercuration of coumarins, A., 487.
 conversion of coumarins into o-coumaric acids, A., 913.
- Sen, R. N., and Mukherji, A., condensations of ethyl carbamate, phenylcarbamate, and diphenylcarbamate with resorcinol, A., 924.
- Sen, R. N., and Qudrat-i-Khuda, M., condensation of ketones with resorcinol. I. Condensation by addition, A., 778.
- Sen, R. N., and Roy, B. C., condensations of lavallic acid with aldehydes, A., 1181.
- Sen, R. N., and Sen, A. K., azomethine azo-dyes, A., 595.
 azotriphenylcarbinol dyes, B., 653.
- Senderens, J. B., catalytic dehydration of saturated aliphatic alcohols in the presence of alkali hydrogen sulphates in the vapour phase, A., 889.
- Senderens, J. B., and Aboulenc, J., catalytic dehydration of saturated aliphatic alcohols by alkali hydrogen sulphates, A., 431.
- Sendo, M., and Kondo, J., nitrates of cellulose benzoate, B., 812.
- Sendroy, J., jun., and Hastings, A. B., dissociation constants of certain sulphonaphthalein indicators, A., 1120.
- Sendroy, J. I., Liu, S. H., and Van Slyke, D. D., gasometric determination of the relative affinity constant of carbon monoxide and oxygen in whole blood at 38°, A., 942.
- Sentfleben, H., and Riechmeier, O., method for investigating the course of the reaction in the formation of molecular hydrogen from atoms, A., 166.
 reaction process in the formation of molecular hydrogen from its atoms, A., 1126.
- Seuftner, G., preservation of the aroma of tobacco and tobacco goods, (P.), B., 1004.
- Sengupta, I. See Patel, P. P.
- Sengupta, P. N. See Pal, N. N.
- Senseman, C. E., cracking of high-boiling coal-tar acids, B., 174.

- Senshu, *T.*, origin of plasma-proteins. I. Action of various tissues on serum-proteins. II. Relation of hyperalbuminæmic and hyperglobulinæmic condition to the action of liver and muscle on serum-proteins. III. Nitrogen and sulphur content of liver and muscle in hyperalbuminæmia and hyperglobulinæmia, A., 359.
- Sensicle, *L. H.*, present requirements of coke ovens, B., 271. fuel gas technique; some modern developments, B., 593.
- Seustius, *M. W.*, agrogeological studies in the tropics. I. High altitudes of the Oriental tropics, B., 920. weathering and soil formation in tropical high altitudes, A., 1398.
- Serantes, *M. T.*, detection of glycerol, A., 1052.
- Serck Radiators, Ltd., and Wagner, *C. O.*, heat-interchanging apparatus, (P.), B., 969.
- Serebriany, *M. M.*, production of paper pulp and paper products, (P.), B., 368. production of paper, artificial leather-material, etc., from leather waste, (P.), B., 554. production of highly glazed, insulating pasteboard, (P.), B., 656.
- Sergeson, *R.*, and Central Alloy Steel Corporation, nitridation of steel articles, (P.), B., 1033.
- Sergeenko, *P. S.*, determination of potassium using lead-containing complexes; $\text{NaPbCo}(\text{NO}_3)_4$, A., 1146.
- Sergeenko, *P. S.* See also Tovarnitzki, *V. I.*
- Sergeiev, *M.*, influence of temperature on precipitation of nickel carbonate, A., 179.
- Sergeiev, *P. G.*, polyphenyl substituted derivatives of *oo'*-ditolyl. II, A., 589.
- Serger, and Nehring, absorption of aluminium from aluminium utensils in the cooking of foods, B., 483.
- Serke, *K.*, test of acetic acid with benzidine, A., 489.
- Serini, *A.* See Schölkopf, *K.*
- Serpollier, *R. E.*, and Drouot, *M. A.* (Serpollier & Drouot), apparatus [gun] for spraying liquids, (P.), B., 1098.
- Serpollier & Drouot. See Serpollier, *R. E.*
- Serres, *A.* See Holgersson, *S.*
- Seshadri, *R. T.*, attempts to find new anti-malarials. II. Amino-alkylquinolinium salts and some related substances, A., 220.
- Sessions, *A. C.*, determination of inorganic nitrogen in dried plant tissue, B., 525.
- Seth, *J. B.*, Anand, *C.*, and Puri, *G. L.*, carbon line resistances, A., 862.
- Sethness, *C. H.* See Hershman, *P. R.*
- Seto, *I.* See Sato, *M.*
- Seto, *K.*, adularia, A., 570. kaolinite, A., 570.
- Setoh, *S.*, and Miyata, *A.*, chemical resistance of aluminium coated with anodic films, B., 16. effect of superposing alternating currents on the electrolytic oxidation of aluminium, B., 564.
- Setoh, *S.*, Ueki, *S.*, and Zaidan Hojin Rikagaku Kenkyiyo, forming an electrically insulating and anti-corrosive oxide coating on aluminium material, (P.), B., 151*.
- Setter, *L. R.* See Rudolfs, *W.*
- Settimj, *L.*, detection of traces of gold chloride in photographic salts, B., 641.
- Settimj, *M.*, so-called "exact iodine value," B., 247.
- Senfert, *G.*, technical analysis of manganese bronzes, B., 377.
- Sévault, *A.*, special zinc-, silicon-, and antimony-aluminium bronzes, B., 330.
- Severinghaus, *E. L.* See Pohle, *E. A.*
- Seward, *R. P.* [with Schumb, *W. C.*], effect of added salts on the solubility of other salts in ethyl alcohol, A., 1512.
- Sewell, *M. C.*, and Gainey, *P. L.*, interrelation of nutrients and soil reaction on growth and inoculation of lucerne, B., 1166.
- Sewell, *M. C.* See also Gainey, *P. L.*
- Sewell, *W. E.* See Evvard, *J. M.*
- Sexl, *T.*, quantum mechanics of α -radiation, A., 271. anomalous scattering of α -rays by light atoms, A., 516.
- Sexl, *T.* See also Guth, *E.*, and Halpern, *O.*
- Seydel, *K.* See I. G. Farbenind. A.-G.
- Seydel, *R.* See Pfeiffer, *P.*
- Seyer, *W. F.*, radioactive platinum concentrates, A., 187.
- Seyer, *W. F.*, and Gallagher, *A. F.*, effect of temperature on the molecular surface energy of binary mixtures. II. Water and nicotine, A., 680.
- Seyer, *W. F.*, and Peck, *W. S.*, effect of temperature on the molecular surface energy of binary mixtures. I., A., 405.
- Seyer, *W. F.*, and Todd, *E.*, solubility of sodium carbonate and a method of determining solubilities at high temperatures, A., 26.
- Seyewetz, *A.*, inversion of amateur films, B., 349. reactions involved in the various methods employed for the solution of the silver image, B., 587.
- Seyewetz, *A.*, and Brissaud, water of crystallisation of mineral and organic compounds, A., 872.
- Seyewetz, *A.* See also Lumière, *A.*
- Seyfried, *W. R.* See Federal Phosphorus Co.
- Seymour, *J. M.*, cooling tower, (P.), B., 398, 799*.
- Seymour, *W. A.*, and Hesse Manufacturing Co., grinding mill, (P.), B., 2.
- Seyter, *W. C.*, and Torsion Balance Co., balance, (P.), B., 1051.
- "Sânz" Spojené Smaltovny a Tovarny na Kovove Zbozi, Akc. Spol., decoration of enamelled ceramic and metallised articles, (P.), B., 284.
- Sáras, *J.* See Broun, *D.*, and Lévy, (*Mlle.*) *Jeanne.*
- Shabalin, *K. N.*, cause of deformation and breaking of stirrers in mechanical pyrites burners, B., 140.
- Shabalin, *K. N.*, and Udintzeva, *V. S.*, vapour pressures of carbon dioxide and ammonia in the ammonia-soda process, B., 1107.
- Shachmuradov, *A. S.*, refining of lead by chlorination, B., 993.
- Shackleton, *W.* See Hammond, *C. F.*
- Shafer, *W. E.*, quantitative hydrogenation of the principal unsaturated components of turpentine, pine oil, and rosin, B., 248.
- Shafer, *J. J.* See Collings, *W. R.*
- Shaffer, *P. A.*, and Friedemann, *T. E.*, sugar activation by alkali. I. Formation of lactic and saccharic acids, A., 747.
- Shaffer, *S.* See Lewis, *H. F.*
- Shah, *C. C.* See Naik, *K. G.*
- Shah, *C. H.* See Naik, *K. G.*
- Shah, *M. S.*, combustion of charcoal in oxygen, nitric oxide, and nitrous oxide. I. Adsorption of oxygen. II. Effect of temperature, A., 170. 4-sulpho-3-hydroxybenzoic acid, A., 1037.
- Shakhkeldian, *A. B.*, colorimetric determination of copper, A., 444.
- Shakhnazarova, *E. M.* See Nametkin, *S. S.*
- Shakhno, *A. P.*, and Zhookovskaia, *M. D.*, determination of volatile matter [in fuels, etc.], B., 593.
- Shank, *J. J.*, and Martin, *J. S.*, rapid method of qualitative colour comparison for opaque solids, A., 1152.
- Shankland, *A. D.*, and Bethlehem Steel Co., manufacture of alloy [tungsten] steels, (P.), B., 719.
- Shannan, *W. V.* See Gas Light & Coke Co.
- Shannon, *E. V.*, miargyrite silver ore from the Randsburg district, California, A., 1397.
- Shannon, *E. V.* See also Short, *M. N.*
- Shapiro, *C. Y.* See Gibbs, *R. C.*
- Shapleigh, *J. H.* See Hercules Powder Co.
- Sharkov, *V. I.*, alkali-cellulose from cellulose acetate, A., 896. composition of copper alkali cellulose, B., 317. influence of methyl alcohol on adsorption of alkalis by cellulose, B., 367. swelling of sulphite-cellulose, B., 607. influence of the presence of γ -cellulose on swelling of a cellulose cardboard in alkalis, B., 607.
- Sharma, *B. S.*, oxidation and photo-oxidation of alkali and ammonium thiocyanates, A., 433. development of colour by photochemical change in concentrated solutions of ammonium thiocyanate, A., 433. action of sulphuric acid on thiocyanates, A., 438.
- Sharma, *R. K.* See Yajnik, *N. A.*
- Sharma, *S.* See Varma, *P. S.*
- Sharov, *M. V.* See Chrushevov, *M. M.*
- Sharp, *C. H.*, apparatus to measure colour temperature of incandescent lamp filaments, A., 466.
- Sharp, *F. L.* See Imperial Chem. Industries, Ltd.
- Sharp, *P. F.*, and Powell, *C. K.*, decrease in interior quality of hens' eggs during storage as indicated by the yolk, B., 1089.
- Sharp, *P. F.* See also Troy, *H. C.*
- Sharp, *T. M.* See Henry, *T. A.*
- Sharp & Dohme, Inc. See Dohme, *A. R. L.*, and Leonard, *V.*
- Sharples, *F.* See Chadwick & Co., Ltd., *J.*
- Sharples, *L. P.*, and Sharples Specialty Co., [centrifugal] separation of mixtures, (P.), B., 886.
- Sharples Specialty Co., and Ayres, *A. U.*, centrifugal machines, (P.), B., 591*.
- Sharples Specialty Co., and Bath, *W. H.*, centrifugal machines, (P.), B., 932*.

- Sharples Specialty Co., and Jones, L. D., centrifugal machines, (P.), B., 491.
- Sharples Specialty Co. See also Ayres, A. U., Ayres, E. E., *jun.*, Bath, W. H., Clark, L. H., Jones, L. D., and Sharples, L. P.
- Sharvin, V. V., and Tuturin, N. V., azo-dyes with a 2:6-dimethoxynaphthalene ring, B., 982.
- Shaughnessy, J. See Drinker, C. K.
- Shaviro, G. See Shiperovich, V.
- Shaw, B. D. See Blood, J. W.
- Shaw, C. See Taylor, William H.
- Shaw, C. F., potent factors in soil formation, B., 680.
- Shaw, C. G., leather product, (P.), B., 874.
- Shaw, C. G., manufacture [compacting and finishing] of [vegetable-tanned sole] leather, (P.), B., 999.
- Shaw, D. T. H. See Parmelee, C. W.
- Shaw, H. See Walker, T. K.
- Shaw, H. N., and Global Corporation, electric furnace, (P.), B., 202*.
- Shaw, M. B., and Bicking, G. W., experimental production of currency paper in the Bureau of Standards paper mill, B., 367.
- Shaw, M. B., rayon as a paper-making material, (P.), B., 504.
- Shaw, M. B., Bicking, G. W., and Snyder, L. W., preparation of fibre test sheets, B., 858.
- Shaw, P. E., nature of friction, A., 686.
- Shaw, P. E., frictional electricity, A., 852.
- Shaw, P. E., and Hanstock, R. F., tribo-electricity and friction. V. Surface strain and relaxation of like solids. VI. Surface strain and relaxation of unlike solids, A., 1110.
- Shaw, W., and Shaw & Co., Ltd., W., annealing dishes, (P.), B., 868.
- Shaw, W. F. B. See Cox, E. G.
- Shaw, W. M., and MacIntyre, W. H., nature of calcium hydroxide absorption by hydrated silica, A., 1109.
- Shaw, W. M. See also MacIntyre, W. H., and Moore & Co., Ltd., C.
- Shaw & Co., Ltd., W. See Shaw, W.
- Shchepetilnikova, A. See Leonov, S.
- Sheahan, R. T. See McQuarrie, L.
- Shear, E. V., washing fruit to remove spray residue in the Hudson Valley, B., 638.
- Shear, M. J., and Kramer, B., composition of bone. IX. Equilibrium of blood-serum with calcium hydrogen phosphate, A., 801.
- Sheard, C., Osterberg, A. E., and Goeckermann, W. H., spectrophotometric determination of hæmatoporphyrin in urine, A., 1467.
- Sheard, C. See also Sanford, A. H.
- Sheard, L., apparatus for cooling tannin solutions during filtration for analysis, B., 731.
- Shearer, A., and Wright, R., effect of gas pressure on the colour of halogen vapours, A., 829.
- Shearin, P. E., relation between the intensity and position of the overtones of some organic liquids, A., 838.
- Shechter, A. See Semenov, N.
- Shedlovsky, T., screened bridge for the measurement of electrolytic conductance. I. Theory of capacity errors. II. Description of bridge, A., 862.
- Shedlovsky, T., conductivity cell for eliminating electrode effects in measurements of electrolytic conductance, A., 862.
- Sheffield, A. H., terra-cotta firing system, (P.), B., 768.
- Sheldon, C. D. See Reed & Co., Ltd., A. E.
- Shelford, V. E. See Kunz, J.
- Shell Oil Co. See Koch, G. P., and Whitaker, C. N.
- Shelton, D. D., retorts for treating coal, peat, shale, etc., (P.), B., 310.
- Shelton, E. M., and Johnson, T. B., silk; a field for research, B., 503.
- Shelton, R. S. See Dennis, L. M.
- Shemitz, R. B., and Wechsler, H. F., detection and segregation of bacteria in liquids, (P.), B., 246.
- Shemtschushni, S. F. See Kurnakov, N. S.
- Shen, D. C. Y., determination of cholesterol in small amounts of blood, A., 380.
- Shen, D. K. See Germann, F. E. E.
- Shen, T. C. See Mainzer, F.
- Shenderovich, F. S., and Livshits, S. S., oxidation of toluene to benzaldehyde with pyrolusite, B., 980.
- Shenstone, A. G., arc spectrum of palladium, A., 1329.
- Shenstone, A. G., wave-lengths in the vacuum copper arc, A., 1329.
- Shenstone, A. G., and Blair, H. A., magnetic analysis of a spectrum by means of the unresolved Zeeman patterns and its application to Ag II, A., 3.
- Shepard, A. F., and Henne, A. L., purification of normal paraffin hydrocarbons by chlorosulphonic acid treatment, B., 803.
- Shepard, A. F., Winslow, N. R., and Johnson, J. R., halogen derivatives of furan, A., 923.
- Shepard, H. H. See Richardson, C. H.
- Sheperd, E. S., and Stewart, A. D., preparing cereal-straw fibre for the manufacture of relatively thick fibrous sheets therefrom, (P.), B., 52.
- Shepherd, J. E. See Walker, C. M.
- Shepherd, M., gas-analysis pipette for difficult absorptions, A., 1013.
- Shepherd, M., simple control stopcock for gas-analysis apparatus, B., 267.
- Shepherdson, A. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Sheppard, M. S. See Koessler, K. K.
- Sheppard, S. E., relation of fluidity of liquids to temperature, A., 534, 679.
- Sheppard, S. E., optical sensitising of silver halides by colloidal silver, A., 1534.
- Sheppard, S. E., antifogging and antisensitising effects, B., 167, 883*.
- Sheppard, S. E., dispersion of cellulose and cellulose derivatives, B., 654.
- Sheppard, S. E., reactions of photographic materials to light, B., 686.
- Sheppard, S. E., antifogging and antisensitising compounds, B., 1092.
- Sheppard, S. E., and Crouch, H., optical sensitisation of silver halide emulsions, B., 83*.
- Sheppard, S. E., and Houck, R. C., plasticity of solvated colloids, A., 157.
- Sheppard, S. E., structure of gelatin sols and gels. I. Viscosity of gelatin solutions, A., 541.
- Sheppard, S. E., fluidity of liquids. I. Relation of fluidity to temperature, A., 1244.
- Sheppard, S. E., structure of gelatin sols and gels. III. Isoelectric points of gelatin, A., 1518.
- Sheppard, S. E., and Hudson, J. H., determination of labile sulphur in gelatin and proteins, B., 385.
- Sheppard, S. E., and McNally, J. G., structure of gelatin sols and gels. II. Anisotropy of gelatin gels, A., 858.
- Sheppard, S. E., and Newsome, P. T., sorption of water vapour by cellulose and its derivatives, A., 28.
- Sheppard, S. E., sorption of water vapour by cellulose and derivatives. II. Kinetics of sorption, A., 990.
- Sheppard, S. E., and Vanselow, W., lattice energies and photochemical decomposition of silver halides, A., 1136*.
- Sheppard, S. E., catalysis of thermal decomposition of silver oxalate by silver sulphide, A., 1258.
- Sheppard, S. E. See also McNally, J. G.
- Sherer, R., and Jones, C. R., separating materials of varying degrees of [electrical] conductivity, (P.), B., 516.
- Shereshelsky, J. L., corresponding state of maximum surface tension of saturated vapours, A., 1350.
- Sherif, M. A. F., effect of certain drugs on the oxidation processes of mammalian nerve-tissue, A., 495.
- Sherif, M. A. F., liberation of formaldehyde in the aqueous humour of the eye after administration of hexamethylenetetramine, A., 496.
- Sherif, M. A. F., and Holmes, E. G., oxygen consumption of nerve in the presence of dextrose and galactose, A., 809.
- Sherman, A. E. See Sterilex, Ltd.
- Sherman, H. C., Caldwell, M. L., and Adams, M., enzyme purification; pancreatic amylase, A., 1316.
- Sherman, H. C., Caldwell, M. L., and Boynton, H. H., influence of acetate and phosphate on the activity of malt amylase, A., 813.
- Sherman, H. C., Caldwell, M. L., and Cleaveland, M., influence of neutral salts on the activity of malt amylase, A., 1065.
- Sherman, J. M. See Stark, C. N.
- Shermill, M. L., derivatives of *n*-heptane. I. Preparation, identification, and physical constants, A., 887.
- Shermill, M. L. See also Errera, J.
- Sherwood, N. P., Johnson, T. L., and Radotinsky, I., *Bacillus pyocyaneus*, A., 115.
- Sherwood, R. C. See Pascoe, T. A.
- Sherwood, T. K., drying of solids. III. Mechanism of the drying of pulp and paper, B., 552.
- Shevlyakov, V., and Volf, M., atmospheric cracking of residue from Apsheron crude oils, B., 890.
- Shevlyakov, V. See also Blagodarov, M.
- Shewring, H., distillation of coal in vertical retorts, B., 6.
- Shiba, K., kinetic theory of diffusion of gases, A., 34.
- Shibata, K., mechanism of action of the oxidoreductases, A., 373.

- Shibata, K., and Tamiya, H., significance of cytochrome in the physiology of cell respiration, A., 949.
- Shibata, K. See also Shibata, Y.
- Shibata, R., trianilinoethylene. I. Synthesis of trianilinoethylene and some of its derivatives. II. Reaction of sulphur on trianilinoethylene, A., 465.
- Shibata, Y., and Shibata, K., oxidase-like actions of certain complex metal salts, A., 373.
- Shibata, Z. See Lange, E.
- Shidei, J. See Weigert, F.
- Shidei, T. See Dote, S.
- Shiels, D. O. See Allmand, A. J.
- Shiiki, K., Donnan's membrane equilibrium, A., 689.
- Shikata, E., and Kida, Y., study of complex salts by means of the polarograph, A., 706.
- Shikata, M., and Hosaki, N., behaviour of colloidal particles at an electrode, A., 413.
- Shikata, M., and Tachi, I., electrolytic reduction potentials of organic compounds. V. and VI. Reduction potentials of ketones and their relation to their molecular constitutions, A., 705.
- Shilling, W. G., and Laxton, A. E., effect of temperature on viscosity of air, A., 1509.
- Shilov, E. A., chlorination of acetic acid, B., 360.
- Shima, G., electrolytic reduction of ketones. I. $\alpha\beta$ -Unsaturated ketones, A., 344.
- electrolytic reduction of aldehydes. VII. Crotonaldehyde, A., 580.
- electrolytic reduction of ketones. II. Formation of hydrocarbons, A., 1291.
- Shimizu, K. See Tanaka, Y.
- Shimizu, S. See Saegusa, H.
- Shimizu, T., preparing vitamin-A in free or combined condition, (P.), B., 741.
- Shimizu, Y., electrical investigation of the setting and hardening of mixed cements containing iron blast-furnace slag, B., 1112.
- Shimmin, J. T., filter, (P.), B., 887.
- Shimomura, T. See Hirose, M.
- Shimura, S., structure of cementite, A., 1351.
- Shimura, S., and Wada, K., quantitative X-ray analysis of iron and of iron-manganese alloys, A., 681.
- Shindob, N., blood-catalase, A., 498.
- Shine, G. T., production of barium monoxide, (P.), B., 904.
- Shinmen, M., relation between liver function and blood-sugar.
- III. Influence of parental administration of the hepatotoxin on the function of carbohydrate metabolism of liver, A., 245.
- Shinn, F. S., seasoning of wood [prior to impregnation], (P.), B., 1067.
- Shinn, L. E., purification and concentration of scarlet-fever toxin, A., 1623.
- Shinobu, O., silkworm-pupa as fish food. I. Chemical composition. II. Digestion with protease of eels. III. Chemical change in stored pupae, A., 237.
- seasonal change in composition of carp muscle, A., 242.
- chemical change in fasting eels, A., 242.
- Shinoda, H. See Asahina, Y.
- Shinoda, J., constituents of *Arctium lappa*. II., A., 609.
- Shinoda, J., and Sato, T., product of oxidation of phloretin; synthesis of 7-hydroxy-3-benzyl-2-methyl-1:4-benzopyrone, A., 1592.
- Shinoda, J., Sato, S., and Kawagoe, M., syntheses of polyhydroxy-chalkones, polyhydroxyhydrochalkones, and polyhydroxy-flavanones. VI. Synthesis of butein, butin, and phloretin, A., 93.
- Shinoda, O., internal secretion in insects. III. Digestive enzymes of the silkworm, A., 1307.
- Shinoda, Y., composition of *Cassia siamea*, I., B., 812.
- composition of *Diospyros ebenum*, Cocc, B., 1104.
- Shinosaki, Y., and Nagasawa, T., Japanese peppermint oils. III. Wild mint oil of Hokkaido. IV. Constituents of Japanese peppermint oils, B., 264.
- Shintre, V. P. See Katti, M. C. T.
- Shiozawa, S., influence of silicon on the mechanical properties of aluminium bronze, B., 512.
- Shipilovich, V. Shaviro, G., and Pipik, O., asphalt road emulsions, B., 510.
- Shipley, G. B., and Alinder, H., [two-deck] electric furnace, (P.), B., 566.
- Shipley, J. W., alternating-current electrolysis of water, B., 151.
- Shipley, S. D., and Atlas Powder Co., brushing lacquer, (P.), B., 571.
- Shipley, T., brine tanks and coolers [for refrigeration apparatus], (P.), B., 171.
- Shipner, J. R., and Cudahy Packing Co., lard product, (P.), B., 927.
- Shiraishi, S. See Somiya, T.
- Shirane, G. See Kidokoro, T.
- Shirey, W. B., isolation of an arsenic compound of pyridine and observations concerning the phase system arsenic trichloride-pyridine, A., 787.
- Shirov, N. F., preparation of phosphorescent substances. II. Sulphides of calcium, strontium, and barium, A., 307.
- Shito, T., isoelectric point and diffusion potential of ions in a living body, A., 639.
- physico-chemical study of proteins, A., 694.
- Shiver, H. E. See Remington, R. E.
- Shneer, J. M. See Ushakov, S. N.
- Shoemaker, J. G., and Lawrence Leather Co., A. C., dyeing shearlings [wool skins], etc., (P.), B., 901.
- Shoemaker, M. J. See Burgess Labs., Inc., C. F.
- Shoemaker, R. J., and S. & T. Metal Co., manufacture of bearing metals, (P.), B., 1034.
- Shoemsmith, J. B., and Mackie, A., reactivity of halogens in various types of naphthalene derivatives. II., A., 1173.
- Shoffstall, A. S. See Internat. Nickel Co.
- Shohl, A. T., and Brown, H. B., rickets in rats. X. Fasting tetany and phosphate tetany, A., 106.
- Shohl, A. T. See also Brown, H. B.
- Shoji, H., mechanism of the change of space-lattice in different modifications of crystals, A., 400.
- Shoji, I., and Sankyo Kabushiki Kaisha, light filter, (P.), B., 747.
- Shoji, T., and Suzuki, E., change in the water-soluble phosphoric acid content of superphosphate during heap storage. I., B., 296.
- Shoji, T., Suzuki, E., and Hirabayashi, S., change of water-soluble phosphoric acid content of superphosphate during storage in bulk; effect of temperature, B., 903.
- Shokin, J. N. See Yushkevich, N. F.
- Shonle, H. A., Keltch, A. K., and Swanson, E. E., dialkylbarbituric acids, A., 1047.
- Shono, T., condensation products of phenols and aldehydes. XIV. Intermediate products containing nitrogen. I., A., 337.
- condensation products of phenols and aldehydes. XV. Relation between percentage of *m*-cresol and the quality of the condensation product, B., 337.
- Shope, R. E., variations of plasma-cholesterol in hog cholera, A., 635.
- Shoppee, C. W., symmetrical triad prototropic systems. VI. Effect of substitution on tautomeric mobility and equilibrium in the α -diphenylpropene system, A., 912.
- Shoppee, C. W. See also Ingold, C. K.
- Shorey, E. C. See Leighty, W. R., and Martin, J. B.
- Shorr, E., Loebel, R. O., and Richardson, H. B., tissue metabolism. I. Phloridzin diabetes, A., 807.
- Shorr, E. See also Richardson, H. B.
- Short, J. F. See Kipping, F. S.
- Short, M. N., and Shannon, E. V., violarito and other rare nickel sulphides, A., 1551.
- Short, W. F., and Watt, J. S., reaction between keto-anils and Grignard reagents and the tautomerism of aliphatic keto-anils, A., 1571.
- Shortley, G. H. See Condon, E. U.
- Shonleikin, W., and Solovova, X., heat radiation of thermit, B., 951.
- Shoup, C. S. See Hill, S. E.
- Shpol'sky, E., inhibition and mechanism of photochemical reaction in Eder's solution, A., 1534.
- Shrewsbury, C. L. See Hogan, A. G.
- Shriner, R. L., and Kleiderer, E. C., [preparation of] piperonylic acid, A., 773.
- Shriner, R. L., and Kurosawa, T., phenyl styryl ketones. II. Decomposition by alkali, A., 1041.
- Shriner, R. L., and Schmidt, A. G., preparation of ethyl benzoyl-acetate, A., 212.
- Shriner, R. L., Struck, H. C., and Jorison, W. J., preparation and properties of sulphoxides and sulphones, A., 900.
- Shriner, R. L., and Turner, T. A., identification of nitriles; preparation of phenyl alkyl ketones, A., 777.

- Shriner, R. L., and Young, J. H., optically active salts of β -nitro-octane, A., 1269.
- Shtamm, L. K. See Aleksandrov, T. G.
- Shscherba, S. V., comparison of the fertilising value of manure and mineral fertilisers, B., 784.
- Shlykaleva, G. F., urinary urobilinogen, A., 1468.
- Shukov, I. I., and Gortikov, V. M., use of antimony electrodes in the differential titration of aqueous and alcoholic solutions, A., 50, 560.
- Shukov, I. I., Kremleva, E. A., and Protas, I. P., action of solutions of electrolytes on kaolin suspensions, A., 158.
- Shukov, I. I., Kremleva, E. A., and Tikhomirov, A. V., colloidal and chemical properties of peat, B., 4.
- Shukov, I. I., and Matusevitch, V. F., effect of temperature on the isoelectric point, A., 417.
- Shukov, I. I., and Schipulina, O. P., adsorption of complex platinum compounds on charcoal, A., 152.
- Shukov, I. I., and Sokolova, M. N., influence of the multivalent cations Th^{+++} and Fe^{+++} on the dispersoidal-chemical properties of kaolins, A., 31.
- Shnkov, I. I., and Unkovskaya, V. A., influence of radium emanation on the viscosity of aqueous solutions of gelatin, A., 993.
- Shukovskaja, M. D. See Schachno, A. P.
- Shultz, J. F. See Emmett, P. H.
- Shumaker, L. See Morgulis, S.
- Shupe, (Miss) L. E. See Deming, W. E.
- Shutt, P. T., protein content of grass as related to stage of growth, A., 384.
- Shutt, F. T., Hamilton, S. N., and Selwyn, H. H., protein content of grass, chiefly meadow fox-tail (*Alopecurus pratensis*), as influenced by frequency of cutting, A., 384.
- Shutt, W. J., and Stirrup, V. J., time factor in anodic passivation of metals, A., 1527.
- Shutts, L. W. See Kettering, C. F.
- Sibaiya, L. See Venkatesachar, B.
- Sibbe, H., action of "nitrophoska I.G.I." in comparison with fertiliser mixtures of various physiological reactions, B., 28.
- Sibgatullin, N. C. See Tronov, B. V.
- Sibi, (Mlle.) M. See Thomas, P.
- Siboni, G., structure of ferric citrates, A., 744.
- Sibree, J. O., viscosity of emulsions. I, A., 290.
- Sica, C. See Marotta, D.
- Sichel Kommandit Ges., F., adhesive for binding waxed paper, (P.), B., 138.
- Sicher, G. See Urbach, E.
- Sichert, K. See Bleyer, B.
- Sickel, L. C. See Ackermann, M. H.
- Sickles, G. M., and Coffey, J. M., hæmolytic substance in pneumococcus culture broth, A., 115.
- Sickman, D. V., and Fischelis, R. P., medicinal wood-tar creosote. I. Methoxyl content as a criterion of the composition of creosote, B., 217.
- Sickman, D. V., and Menzies, A. W. C., parachors of two isomeric chlorodinitrobenzenes, A., 1279.
- Sidery, A. J. See Sutton, H.
- Sidgwick, N. V., and Bayliss, N. S., parachor of co-ordinated hydrogen in *ortho*-substituted phenols, A., 1240.
- Sidgwick, N. V., and Sutton, L. E., system cyclohexanol and water, A., 988.
- constitution of some organic derivatives of thallium, A., 1052.
- Sidgwick, N. V. See also Hammick, D. L.
- Siebe, P., change in density and electrical conductivity of copper during polishing, B., 512.
- Siebe, P., and Elsner, G., structure of hard brass (58% Cu) after various heat treatments, B., 561.
- properties of extruded rods of electrolytic copper, smelter copper, arsenical copper, and 4% aluminium bronze, and their variation with the extruding conditions, B., 1071.
- Siebenbürger, H. See Soc. of Chem. Ind. in Basle.
- Sieber, W. See Curtius, T.
- Siebert, H., electric muffle with chromium-nickel wire heaters, A., 1265.
- Siebert, R. See Fischer, Hans.
- Siebert, W. W., action-radiation of muscle and growth action of the electro-dynamic field, A., 108.
- Stempell's phenomenon in Liesegang rings, A., 966.
- mitogenetic radiation from the blood and urine of healthy and diseased persons, A., 1611.
- Siebertz, K., excitation function of mercury collision luminosity, A., 392.
- Siebnier. See Kluckow, P.
- Sieck, W., jun., and Garrigue & Co., W., evaporator, (P.), B., 746.
- Siedel, J., production of butter, (P.), B., 301.
- Siedentopf, H., molecular motion in the light-image ultra-microscope, A., 1366.
- Sieder, E. N., and Foster Wheeler Corporation, heat-exchange apparatus, (P.), B., 2.
- Siedler, P. C. H. See I. G. Farbenind. A.-G.
- Siegbahn, M., and Magnusson, T., spectroscopy of ultra-soft X-rays, A., 1078.
- spectroscopy of ultra-soft X-rays. I, A., 1229.
- Siegel, R., effect of thyroid gland and pancreas on the carbohydrate exchange of the liver, A., 379.
- effect of hormones on the distribution of sugar and cell permeability in the animal organism, A., 504.
- Siegel, R. See also Isaac, S.
- Siegens, H. See N. V. Montaan Metaalhandel.
- Sieglerschmidt, H. See Bauer, O.
- Siegmann, F. See Moser, L.
- Siemens, F. C. See Durrer, R.
- Siemens, W. See Arnd, T.
- Siemens Aktien-Gesellschaft, F. See Durrer, R.
- Siemens Bros. & Co., Ltd., and Edwin, C. F., electric dry cell, (P.), B., 1078.
- Siemens Gebrüder & Co., carbon electrodes for electric furnaces, (P.), B., 774.
- Siemens & Halske Akt.-Ges., electrolytic production of protective coatings of lead peroxide on electrical conductors, (P.), B., 108.
- incandescence cathode, (P.), B., 246.
- electric induction furnace, (P.), B., 380.
- production of beryllium alloys, in particular those with a high beryllium content, by means of fused electrolysis, (P.), B., 427.
- [cathode for] gas-filled electric-discharge devices, (P.), B., 428.
- manufacture of porous bodies, more particularly for electro-osmotic purposes, (P.), B., 428, 516.
- production of insulating masses of high disruptive strength, (P.), B., 429.
- electrical separation of rubber from rubber latex, (P.), B., 471, 728.
- measurement of heat-quantities, (P.), B., 591.
- incandescence bodies, e.g., filaments, for electric incandescence lamps, vacuum tubes, etc., (P.), B., 775.
- measurement of the rate of flow of fluids by means of electric generators, (P.), B., 825.
- metallisation of thermally unstable substances, more particularly of organic electrically insulating substances, (P.), B., 915.
- production of rhenium; extraction of rhenium concentrations, (P.), B., 994.
- production or influencing of diaphragm for electro-[end]osmotic purposes, (P.), B., 996.
- electrolytic recovery of tin in the form of compact plates of any desired thickness, from alkaline lyes containing alkali stannate, (P.), B., 1077.
- decarburisation of iron and steel and their alloys, (P.), B., 1114.
- means for handling objects in baths, particularly for electrolytic baths, (P.), B., 1117.
- working a continuously-acting absorption refrigerating machine, (P.), B., 1137.
- Siemens & Halske Akt.-Ges., and Gerdien, H., incandescence cathode [discharge] tube, (P.), B., 201.
- Siemens & Halske Akt.-Ges., and Kroll, W., [beryllium-nickel-iron] alloy, (P.), B., 868.
- Siemens & Halske Akt.-Ges., and Schenkel, K., graphite and depolariser plates for galvanic cells, (P.), B., 153.
- production of galvanic elements or batteries, (P.), B., 567.
- Siemens & Halske Akt.-Ges., and Schwartz, K. W., sectional electroplating, particularly applicable for plating large objects with chromium, (P.), B., 954.
- Siemens & Halske Akt.-Ges. See also Becker, Hans, Engelhardt, V., Esmarch, W., Fetkenheuer, B., Hosenfeld, M., Masing, G., and Schack, A.
- Siemens-Bauunion Gesellschaft m.b.H. Komm.-Ges. See Tiefbau- & Kalteind. A.-G.
- Siemens-Elektro-Osmose Ges.m.b.H., apparatus for electro-osmotic separation from solutions of anodic or cathodic travelling particles, (P.), B., 108.
- separation of rubber from latex, (P.), B., 728.

- Siemens Elektro-Osmose Ges.m.b.H., electrophoretic deposition of solids from dispersions, *e.g.*, caoutchouc from latex, (P.), B., 728.
- Siemens-Planawerke Akt.-Ges. für Kohlefabrikate, long-duration arc-lamps, (P.), B., 673.
- Siemens-Reiniger-Verfa Ges. für medizinische Technik m.b.H., taking X-ray photographs with a short exposure, (P.), B., 22.
- X-ray tubes, (P.), B., 201.
- [rotational method for] cathode-ray sterilisation, (P.), B., 202.
- apparatus for generating Röntgen rays, (P.), B., 381.
- Röntgen-ray apparatus, (P.), B., 1035.
- Siemens-Schuckertwerke Akt.-Ges., absorption refrigerating machines, (P.), B., 87, 353, 445, 494.
- protection of boilers against scale formation, (P.), B., 126.
- liquid centrifuging apparatus, more especially for washing machines, (P.), B., 281.
- electrically-heated furnace, (P.), B., 334.
- production of an electrical connexion of high conductivity between a layer formed of a metal compound and a conductor, (P.), B., 466.
- dry metal rectifier cells, (P.), B., 775.
- insulating oil for electrotechnical purposes, (P.), B., 775.
- absorption refrigerating machine with neutral circulating gases, (P.), B., 799.
- absorption refrigerating machines applicable also for heating purposes, (P.), B., 799.
- production of thin insulating coatings on wires, (P.), B., 825.
- moistening of gases prior to purification by electrostatic deposition of dust, (P.), B., 954.
- electric purification of gases containing hot vapours, (P.), B., 995.
- production of a good conducting electrical connexion between a metal compound layer and a coating of a ductile metal applied thereon [*e.g.*, in dry copper oxide rectifiers], (P.), B., 996.
- absorption machines for producing cold or heat, (P.), B., 1009.
- Siemens-Schuckertwerke Akt.-Ges., and Albrecht, P., coating of electrodes with sponge nickel, (P.), B., 201.
- Siemens-Schuckertwerke Akt.-Ges., and Gerlach, F., apparatus for removal of injurious gases from underground workings, (P.), B., 1006.
- Siemens-Schuckertwerke Akt.-Ges., and Hahn, C., precipitation electrode for electrical gas purification, (P.), B., 336.
- Siemens-Schuckertwerke Akt.-Ges., and Heinrich, R., production of fuel from brown coal, etc., (P.), B., 448.
- Siemens-Schuckertwerke Akt.-Ges., and Mayr, K. A., furnaces for liquid, powdered, or gaseous fuels, (P.), B., 305.
- Siemens-Schuckertwerke Akt.-Ges., and Müller, F., prevention of explosions in electric gas-purification plants, (P.), B., 201.
- Siemens-Schuckertwerke Akt.-Ges., and Schnepf, J., refractory support for the resistors of [electric] furnaces, (P.), B., 241.
- Siemens-Schuckertwerke Akt.-Ges. See also Elsässer, R., and Siemens-Schuckertwerke Ges.m.b.H.
- Siemens-Schuckertwerke Ges.m.b.H., and Siemens-Schuckertwerke Akt.-Ges., absorption refrigerating machines, (P.), B., 932.
- Siemers, W. See Tacke, B.
- Sievers, F. J., significance of nitrogen in soil organic matter relationships, B., 474.
- Sievers, O. See I. G. Farbenind. A.-G.
- Sieverts, A., and Brünig, H., occlusion of hydrogen by platinum-black, A., 1246.
- Sieverts, A., and Gotta, A. [with Halberstadt, S.], properties of metal hydrides. II, A., 534.
- Sieverts, A., and Halberstadt, S., absorption in gas-washing bottles, A., 1151.
- Sieverts, A., and Krüll, F., system iron-nitrogen, A., 878.
- Sieverts, A., and Müller, Heinz, reciprocal salt pair $MgCl_2$, $Na_2(NO_3)_2$, H_2O . I, A., 702.
- Sieverts, A. See also Hagen, H., and Kirschfeld, L.
- Sigmund, A. A. J. von, alkali soils and soil reclamation, B., 253.
- reaction and lime requirement of Hungarian soils, B., 256.
- laboratory methods for determining the fertiliser requirement of soils, B., 257.
- preparation of hydrochloric acid extracts of soils, B., 259.
- Sigmund, R. See Sandra, K.
- Signer, R., Romijn's formaldehyde titration, A., 323.
- highly polymerised compounds. XXXIV. Modification of Barger's method of mol. wt. determination, A., 531.
- highly polymerised compounds. XLIII. Streaming double refraction of molecular colloids, A., 1366.
- Signer, R. See also Konrad, E., and Staudinger, H.
- Sihvonen, V., electrometric determination of the two dissociation constants of dibasic acids, A., 698.
- mechanism of the combustion of carbon at low pressures, A., 1379.
- Sihvonen, V., and Kerkkänen, G., influence of magnetic field and electrolyte agitation on electrolytic potential, A., 423.
- Silber, L. A., and Friese, W., antigenic properties of colloidal metals, A., 361.
- Silbereisen, K. See Bechhold, H.
- Silberfarb, L. M. See Besborodov, M. A.
- Silbermann, H. See Braun, J. von.
- Silbernagel, F. C., determination of relative diastatic powers of malt, B., 389.
- Silberstein, G. See Trivelli, A. P. H.
- Silberstein, I., manufacture of electrical resistances, (P.), B., 955.
- Silberstein, L., and Trivelli, A. P. H., quantum theory of X-ray exposures on photographic emulsions, A., 717.
- Silberstein, L. See also Bertrand, G.
- Silesia Verein Chemischer Fabriken, preparation of diarylthio-carbamides, (P.), B., 452.
- Silica Gel Corporation, Connolly, G. C., and Miller, E. B., manufacture of silica and similar adsorbent gels [of low apparent density], (P.), B., 372.
- Silica Gel Corporation, and Miller, E. B., refrigeration apparatus for vehicles fitted with cold-storage rooms, more particularly railway refrigeration cars, (P.), B., 972.
- refrigeration apparatus, (P.), B., 1137.
- Silica Gel Corporation. See also Miller, E. B.
- Silica Products Co. See Cross, R.
- Silin, A. K., oxygen content of basic mild open-hearth steel before the addition of deoxidisers, B., 1155.
- Siljeholm, G. See Lane, M. von.
- Sille, G. See Tafel, V.
- Siller, W. See Siller & Rodenkirchen Ges.m.b.H.
- Siller & Rodenkirchen Ges.m.b.H., and Siller, W., digestors, (P.), B., 399, 691.
- Silván, L. See Lora, M.
- Silvarich. See Tian, A.
- Silver Springs Bleaching & Dyeing Co., Ltd., and Hall, A. J., dyeing of cellulose acetate silk in fast [oxidation] black shades, (P.), B., 64.
- dyeing cellulose acetate products in [oxidation] black shades, (P.), B., 185.
- Silverman, A. See Lai, C. F.
- Silverman, L. See Seltz, H.
- Silverman, S., adsorption of methyl alcohol films on rock-salt, A., 1364.
- Silvette, H. See Chanutin, A.
- Simard, R. See Frolich, P. K.
- Šimek, A., and Stehlik, B., m. p. of pure tellurium, A., 986.
- Šimek, A., and Stehlik, B. [with Šmida, J.], m. p. of tellurium dioxide, A., 1243.
- Šimek, B. G., composition of tar from some North Bohemian coals, B., 496.
- Simeon, F., and Smith, C. F., vacuum grating spectrograph, A., 1395.
- Šimer, F. See Dickens, F.
- Simesen, M. H. See Veibel, S.
- Simici, D., Vladesco, R., and Popesco, M., urea and ammonia in normal gastric juice, A., 804.
- Simmer, A. See Grossfeld, J.
- Simmer, F., and Aktieselskabet Dansk Gaerings-Industri, biological purification of waste water, (P.), B., 442*.
- manufacture of spirit and yeast by working-up molasses, (P.), B., 963*.
- Simmert, U. See Pesch, K. L.
- Simmonds, F. A. See Schafer, E. R.
- Simmons, C. W., and Long, J. D., tower-absorption coefficients. III. Absorption of benzene by mineral oil, B., 801.
- Simmons, W. H., manufacture of casein plastics, B., 679.
- Simms, H. S., concentrating dialyser, A., 567.
- arginine and prearginine groups in edestin, A., 1459.
- Simms, H. S. See also Jones, F. S.
- Simola, P. E., aerobic fermentation of cellulose, A., 818.
- Simon, A., effect of insulin and thyroxine on liver autolysis, A., 117.
- hydrogels. IX. Lead dioxide hydrate, A., 289.
- oxides. V. Preparation, properties, density, and molecular volume of a crystalline lead dioxide, A., 308.
- distribution of amino-acids in blood in anæmias, A., 1611.

- Simon, A., and Annau, E., distribution of amino-acids in blood during chloroform narcosis and in anemic animals; relationship between the osmotic resistance of the erythrocytes and amino-acid distribution, A., 1215.
- Simon, A., and Blazsó, A., effect of potassium, calcium, and thyroxine on acetaldehyde formation in minced muscle, A., 112.
- Simon, A., and Fischer, O., hydrogels. VI. Conversion of water of hydration into water of adsorption in the mechanical disintegration of hydrated crystals. VIII. Hydrates of zirconium dioxide, A., 158.
- Simon, A., Fischer, O., and Schmidt, T., hydrogels. VII. Hydrates of chromic oxide, A., 158.
- Simon, A., and Schmider, K., behaviour of soluble salts during the burning of clays: the problem of efflorescence. IV. Conditions for the formation of sulphate efflorescences in ceramic materials, B., 713.
- Simon, A., and Vetter, W., behaviour of soluble salts during the burning of clay: a contribution to the problem of efflorescence. II. Behaviour of salt mixtures, B., 326.
- Simon, A. W., and Kron, L. C., method of mapping equipotential lines and its application to electrical precipitator problems, B., 995.
- Simon, E., actions of acetic bacteria, A., 1477.
- Simon, F., infra-red frequencies of the diamond, A., 978.
- Simon, F., and Bergmann, (Frl.) R., thermally excited quantum jumps in solids. IV. Measurement of thermal expansion in anomalous region, A., 980.
- Simon, F., Mendelssohn, K., and Ruhemann, M., anomalous specific heats of solid hydrogen at helium temperatures, A., 282.
- Simon, F., Ruhemann, M., and Edwards, W. A. M., fusion curve of helium. II., A., 24.
- Simon, F., curves of hydrogen, neon, nitrogen, and argon, A., 403.
- Simon, F., fusion curves of hydrogen, neon, nitrogen, and argon, A., 533.
- Simon, F. See also Aharoni, J., and Elbe, G. von.
- Simon, G., production of diffraction gratings by the photography of interference fringes, A., 654.
- Simon, H., centrifugal casting, B., 16.
- Simon, I., lowering of viscosity of water, blood-serum *in vitro*, and blood *in vivo* by certain anions, A., 496.
- Simons, J. H., properties of selenium tetrachloride, A., 1356.
- Simons, J. H., properties of tellurium tetrachloride, A., 1356.
- Simon, K. See Baumgärtel, F.
- Simons, L., space distribution of X-ray photo-electrons from a solid film, A., 1336.
- Simon, O., dental cement, (P.), B., 949.
- Simon, R. H., immersion filter for phosphorus, calcium, and crude fibre determinations, A., 185.
- Simon, R. H., effect of phosphate and lime on the rate curve of solubility of phosphorus from a Wooster silt loam soil, B., 255.
- Simon, Ltd., H., and Raeburn, C., conditioning and drying machines for wheat and other cereals, (P.), B., 301.
- Simon, Ltd., H., and Watts, G., centrifugal dust separators or extractors, (P.), B., 645.
- Simonart, A. J. L. See Gunn, J. A.
- Simonet, A., [open-hearth] furnace, (P.), B., 17.
- Simonet, M. See Colin, H.
- Simonin, G., activated carbons, B., 748.
- Simonis, O., liquid-air oxygen-producing plant, (P.), B., 557*.
- Simonis, O., and Liquid Air, Ltd., plant for generating, storing, and supplying acetylene gas, (P.), B., 7.
- Simonnet, H., biochemistry and pharmacodynamics of the thyroid gland, A., 1039.
- Simonnet, H., and Tanret, G., toxicity of large doses of irradiated ergosterol to laboratory animals, A., 506, 822.
- Simonnet, H., calcification of the lung of the healthy or tuberculous rabbit by large doses of irradiated ergosterol, A., 1071.
- Simonnet, H. See also Belloc, G., Fabre, R., and Sainton, P.
- Simonova, V. M. See Dumanski, A. V.
- Simons, J. H. See Lowry, T. M.
- Simonsen, J. L. See Elson, L. A., Gibson, C. S., and Penfold, A. R.
- Simpère, A. See Fanconner, E.
- Simplex Engineering Co., [roller-type] glass-annealing lehrs [for plate or sheet glass], (P.), B., 1029.
- Simplex Wire & Cable Co. See Boggs, C. R.
- Simpson, F. M. See Piver, W. C.
- Simpson, G. E., effect of breathing high concentrations of carbon dioxide on urinary excretion of water, A., 102.
- Simpson, G. E., changes in urine brought about by sleep and other factors, A., 105.
- Simpson, G. L., electric-furnace iron, B., 511.
- Simpson, H. E., development of an enamel on a eutectic basis, B., 239.
- Simpson, H. G. See Partington, J. R.
- Simpson, R. W., artificial snow, (P.), B., 862.
- Simpson, W. W. See Mackler, H.
- Sims, C. E. See Hamilton, W. C.
- Sims, T. B., treatment of [sewage] sludge; sewage disposal system, (P.), B., 1094.
- Sims, T. B., and Wardlaw, L. J., sewage disposal plant, (P.), B., 1094.
- Sinclair, C. L., and Croft, C. M., gas-making retorts, (P.), B., 311.
- Sinclair, J. R. See Cleartron (1927), Ltd.
- Sinclair, R., and United Combustion Engineers, Inc., pulveriser, (P.), B., 490.
- Sinclair, R. G., metabolism of phospholipins. I. Influence of diet on phospholipin fatty acids in tissues of the cat, A., 809.
- Sinclair, R. G., metabolism of the phosphatides. II. Influence of growth on phosphatide and cholesterol content of the rat, A., 1471.
- Sinclair, S. E. See Publow, H. E.
- Sinclair Oil & Gas Co. See Bernard, H. B.
- Sinclair Refining Co. See Apgar, F. A., Bell, J. E., Black, R. J., Gardner, R. H., Herthel, E. C., Isom, E. W., Pilzer, H. L., Taber, G. H., jun., Tift, I. de C., Tinker, F., and Vobach, A. C.
- Singer, F., stoneware masses. I. Composition, B., 240.
- Singer, F., artificial plagioclase compounds, (P.), B., 714*.
- Singer, G. See Taylor, L. S.
- Singer, K. See Fürth, O.
- Singer, L., cracking processes in the Russian petroleum industry, B., 848.
- Singer, S. S., complete analysis of magnesium-aluminium alloys, B., 912.
- Singer Manufacturing Co. See Fleckenstein, G. A.
- Singh, B. See Bhatnagar, S. S.
- Singh, B. K., method for distinguishing isomeric, tautomeric, and polymeric, from polymorphic optically active substances, A., 478.
- Singh, B. K., and Bhaduri, B., dependence of optical rotatory power on chemical constitution, A., 1095.
- Singh, B. K., dependence of optical rotatory power on chemical constitution. VIII. Stereoisomeric *d*-, *l*-, *dl*-*p*-phenylene-, 1:4-naphthylene-, *pp'*-diphenylamine-, and *pp'*-diphenylmethanebisimino-camphors; *p*-phenylene-, *pp'*-diphenylmethanebisamino-camphors; *p*-diphenylaminocimino-camphors and *p*-diphenylaminoamino-camphors and their derivatives, A., 1441.
- Singh, G., and Ray, J. N., indoquinoline derivatives, A., 1445.
- Singh, M., and Singh, R., action of substituted aromatic amines on camphoric anhydride; hydroxy-, methoxy-, and ethoxy-camphoranilic acids and camphoro-methoxy- and -ethoxy-phenylimides, A., 1045.
- Singh, R. See Singh, M.
- Single, A. See Dornfried, A.
- Singleton, G., and Thornton, R. P., treatment of phosphate rock, (P.), B., 143.
- Sinit Akt.-Ges., manufacture of plastic masses, (P.), B., 157.
- Sinka, A., separation of lithium from potassium and sodium by means of dioxan, A., 1146.
- Sinks, M. H. See Lange, N. A.
- Sinnatt, F. S., cenospheres and the structure of coke, B., 934.
- Sinnatt, F. S., and Davies, D. T., developments and problems in coal cleaning, B., 646.
- Sinnatt, F. S. See also Carille, J. H., Morgan, G. T., and Newall, H. E.
- Sinozaki, M. See Nishizawa, K.
- Sipmann, K. See Loevenich, J.
- Sippel, A., division and calculation of the parachor, A., 1349.
- Sipple, H. L., and King, C. G., preparation and properties of vitamin-C fractions from lemon juice, A., 381.
- Siracusano, N., new phenomena in the annular spark, A., 512.
- Sirkar, S. C., intensities of the lines in Raman spectra, A., 1344.
- Sirkar, S. C., Laue photographs of iridescent crystals of potassium chlorate, A., 1503.
- Sisido, K., bamboo. I. Fine structure of the bamboo fibre, B., 812.
- Sisido, K., bamboo. II. Bamboo-lignin, B., 898.
- Sisley, F., and David, "direct-green B," a very sensitive reagent for detection of copper, A., 1546.
- Sismanopol, A., secondary electric cells, (P.), B., 22.
- Sivadjian, J., colour reaction of ephedrine, A., 1460.
- Sivolobov, A. V., water-gas tar, B., 890.

- Sixtus, K., investigations on secondary emission, A., 268.
- Sizer, A. W., cooling or drying machinery [for cattle cakes, etc.], (P.), B., 1098.
- [roller machine for] moulding of plastic substances, (P.), B., 1137.
- Sizer, A. W. See also Raahauge, S. A.
- Sizoo, G. J. See Auwers, O. von.
- Sizov, A. See Ipatiev, V. N.
- Sjögren, B., and Svedberg, T., mol. wt. of legumin, A., 1303.
- mol. wt. of lactalbumin, A., 1460.
- Sjögren, B. See also Svedberg, T.
- Sjöman, P. See Hedvall, J. A.
- Skalmowski, W. See Maczynski, M.
- Skappel, H., smelting of ores to metal, matte, and slag, (P.), B., 331.
- Skau, E. L., compound formation in system naphthalene-*m*-dinitrobenzene, A., 543.
- Skau, E. L., and Meier, H. F., transition temperature of carbon tetrachloride as a fixed point in thermometry, A., 161.
- Skau, E. L., and Saxton, B., effect of heat on crotonic acid, A., 321.
- Skaupy, F., changes in concentration in dilute alkali and alkaline-earth metal amalgams, A., 34.
- grain size and grain-boundaries, A., 155.
- Skaupy, F., and Liebmann, G., nuclear size and radiation properties of non-metallic bodies, A., 660.
- temperature radiation of non-metallic bodies, and especially of oxides, A., 1341.
- Skerl, J. G. A. See Brit. Cast Iron Res. Assoc.
- Skilling, W. J. See Newall, H. E.
- Skinner, C. E., bacterial decomposition of cellulose, A., 1218.
- explanation of the action of the so-called accessory substances in the association of *Azotobacter* and cellulose-decomposing organisms, B., 632.
- Skinner, C. E., and Gardner, C. G., utilisation of nitrogenous organic compounds and sodium salts of organic acids by certain soil algae in darkness and in light, B., 631.
- Skinner, C. E., and Nygard, I. J., presence of *Azotobacter* and absence of *Thiobacillus thiooxidans* in peat soils, B., 961.
- Skinner, E. M. See Brown, G. G.
- Skinner, J. T., and Peterson, W. H., determination of manganese in animal material, A., 1326.
- Skirrow, F. W. See Canadian Electro Products Co., Ltd.
- Skita, A., and Keil, F., manufacture of amino-alcohols, (P.), B., 980.
- Skita, A., and Keil, F. [with Havemann, H., and Lavrovski, K. P.], formation of bases from carbonyl compounds. V. *N*-Alkylation of secondary amines; diastereoisomeric amino-alcohols, A., 327.
- Skita, A., and Rohrmann, W., nuclear hydrogenation of polynuclear quinones. III. Phenanthraquinone, 1:4-naphthanthraquinone, and 1:4-anthraquinone, A., 1043.
- Sklenar, W. F., and British Reverberatory Furnaces, Ltd., reverberatory furnace, (P.), B., 378.
- Skobelzyn, D., spectral distribution and mean wave-length of Ra- γ -rays, A., 8.
- Skoda Works, headers for heat-exchanging apparatus, (P.), B., 490.
- Skoglund, J. V., and Trojan Powder Co., treatment of nitrated bodies, (P.), B., 842.
- Skola, V., grain size of ceramic bodies, B., 947.
- Skopinzev, B., comparison of methods for the extraction of phosphoric acid from phosphorites and Thomas slags, B., 371.
- Skopp, E. See Berg, R.
- Skow, N. A. See Dennis, L. M.
- Skrabal, A., theory of periodic reactions in homogeneous systems, A., 547.
- chemical mechanics, A., 994.
- Skramovsky, S., double oxalates of bismuth and sodium, A., 1008.
- Skraup, S. See Rheinische Kampfer-Fabr. G.m.b.H.
- Skulskaja, I. M. See De Kolosovski, N.
- Skutezky, R. See I. G. Farbenind. A.-G.
- Skutta, T., electrical conductivity of nickel and steel in nitrogen and hydrogen atmospheres at high pressures, A., 1505.
- Skvorzov, V. See Portnov, A.
- Slack, F. G., arrangement for obtaining a steady flow of gas at constant low pressure, A., 314.
- hydrogen atom in the Stark effect, A., 969.
- Slade, R. E. See Imperial Chem. Industries, Ltd.
- Slagle, E. A., O'Harra, B. M., and American Smelting & Refining Co., briquetting of flue dust, (P.), B., 426.
- Slagle, E. A. See also O'Harra, B. M.
- Slagle, W. M. See Poth, E. J.
- Slagter, A. J., and Transcontinental Oil Co., processing of heavy oils, (P.), B., 1057.
- Slate, T. B., manufacture of carbon dioxide snow, (P.), B., 189.
- Slater, C. S., and Acree, S. F., determining aldose sugars by titration with iodine and alkali, A., 1165.
- Slater, C. S. See also Hall, W. C.
- Slater, J. C., complex spectra, A., 126.
- cohesion in univalent metals, A., 675.
- atomic shielding constants, A., 1234.
- Slater, R. H., quinoline compounds containing arsenic. 1. Synthesis of 6-methoxyquinoline derivatives of aminophenyl-arsinic acids, A., 937.
- Slater, V. W. See Laporte, Ltd., B.
- Slattery, (Miss) M. K., uranium as an activator. II., A., 16.
- Slaughter, C. E., disposal of creamery wastes, B., 301.
- Slavin, M. See Steck, L. V.
- Slawiński, K., and Hofszajn, S., formation of *cis*-, *cis-trans*-derivatives in the terpene group, A., 348.
- Slawson, C. B., [crystallography of] theelin, A., 1100.
- Slawson, M. G. See Bomhoff, L. J.
- Sleeman, O., manufacture of malt, (P.), B., 437, 738.
- Sleeper, R. R., and Calco Chemical Co., Inc., method of dyeing, (P.), B., 1106.
- Sleightholme, J. J. See Hilditch, T. P.
- Slendyk, I. See Herasymenko, P.
- Slepian, J. See Westinghouse Electric & Manuf. Co.
- Slezak, K. I. See Tovarnitzki, V. I.
- Slifirski, J. See Weil, S.
- Sloman, A. W. See Semon, W. L.
- Slonim, C., thermodynamics and kinetics of heterogeneous equilibria, A., 1122.
- Slonim, C. See also Hüttig, G. F.
- Sloof, G. See Böeseken, J.
- Slopkovitzer, M., determination of the law of resistance to motion through gases for gold particles of 1 to 2×10^{-6} cm., A., 392.
- Slosse, A. See Errera, J.
- Slotta, K. H., connecting flask for vacuum distillation, A., 1014.
- Slotta, K. H., and Dressler, H., carbimides. VII. Preparation of aromatic thiocarbimides and carbimides, A., 764.
- Slotta, K. H., and Heller, H., attempted glucosidation of β -hydroxy- β -phenylethylamines, A., 895.
- Slotta, K. H., and Jacobi, K. R., preparation of organic reagents in analytical laboratories. II. Cupferron, A., 769.
- Slotta, K. H., Tschesche, R., and Dressler, H., guanylthiocarbimides. I., A., 329.
- Slotta, R. K., and Franke, W., preparation and application of higher esters of *p*-toluenesulphonic acid, A., 588.
- Sluiter, G., production of hydrogen sulphide by animal tissues, A., 815.
- Sly, G. E. See Pucher, G. W.
- Smakula, A., photo-electric effect and decoloration and excitation of alkali halides, A., 397.
- influence of other ions on photochemical processes in alkali halides, A., 1384.
- colouring of alkali halide crystals by ultra-violet light, A., 1234.
- Smallwood, A., and Fallon, J., furnaces and apparatus for annealing or heat-treating metal, etc., (P.), B., 1158.
- Smallwood, H. M., and Herzfeld, K. F., dipole moments of the disubstituted benzenes, A., 841.
- Smart, J., apparatus for drying broken stone, slag, etc., (P.), B., 125.
- Smekal, A., temperature law of ionic conductivity of solid lead halides, A., 23.
- [mechanism of ionic conduction in solid compounds of the class of good conductors], A., 140.
- dependence of breaking strain and elastic limit for rock-salt crystals on the conditions of crystallisation, A., 529.
- Raman effect and its significance for the spectroscopic study of molecular structure, A., 1344.
- dependence of back-*E.M.F.* and true conductivity of ion crystals on field intensity, A., 1354.
- Smekal, A. See also Blank, F.
- Smelyanski, I. C. See Budnikov, P. P.
- Smida, J. See Simek, A.
- Smidth, L. See Budd Manuf. Co., E. G.
- Smidth & Co., F. L. See Pontoppidan, C.
- Smiles, S. See Cohen, A., Stevenson, H. A., and Warren, L. A.

- Smirnov, A. I., and Drboglav, M. A., curing of yellow tobacco. I. Physiology of cigarette tobacco leaf starvation, B., 209.
- Smirnov, N. D., influence of roasting raw phosphates on the availability of phosphoric acid, B., 784.
- Smirnova, A. See Steppuhn, O.
- Smirnova, M. I. See Ivanov, N. N.
- Smirnova, V. P. See Lepeschinskaja, O.
- Smít, A. J. H. See Romburgh, P. van.
- Smít, W. C., linoleic acids and their oxidation by peracids, A., 891.
- action of peracids on linoleic acids and on some other unsaturated fatty acids; influence of composition and configuration of isomeric unsaturated fatty acids on the rate of oxidation by peracetic acid, A., 1020*.
- quantitative oxidation of double linkings in oils and fats by peracetic acid; a new method for determining degree of unsaturation, A., 1020.
- Smith, A., and Flint, F. W., soil moisture determinations by the alcohol method, B., 474.
- Smith, A. B., and Smith, C. R., mixing apparatus, (P.), B., 400*, 645.
- apparatus for treating and mixing comminuted or finely-divided materials, (P.), B., 932, 1051*.
- Smith, A. E. See Brit. Thomson-Houston Co., Ltd.
- Smith, A. R. See Brit. Thomson-Houston Co., Ltd.
- Smith, A. W., and Sears, R. W., Hall effect in permalloy, A., 281.
- Smith, B. A. See Smith, W. D.
- Smith, C. C. See Imperial Chem. Industries, Ltd.
- Smith, C. F. See Simeon, F.
- Smith, C. G., and Raytheon, Inc., rectifier; electric discharge device, (P.), B., 22.
- Smith, C. J., calorimeter suitable for determining heats of solution, with an application to worked and annealed metals, A., 55.
- Smith, C. M. See Jones, H. A.
- Smith, C. N. See Bartel, F. C.
- Smith, C. R., Skraup's reaction applied to phenylenediamines; preparation of phenanthrolines and related dipyrindyls, A., 352.
- Smith, C. R. See also Smith, A. B.
- Smith, C. S., air-hardening copper-cobalt alloy, B., 562.
- a-phase boundary of the ternary system copper-silicon-manganese, B., 615.
- thermal conductivity of copper alloys, B., 615.
- Smith, C. S., and Hayward, C. R., deoxidation of copper, (P.), B., 1034.
- Smith, D. C., and Bressman, E. N., effects of seed treatment on the germination and subsequent growth of wheat, B., 296.
- Smith, D. F., and Hirst, L. L., reliability of heat data as a factor in calculating equilibria involving methyl alcohol, A., 997.
- reactions that occur on a methyl alcohol catalyst, A., 1553.
- Smith, D. M., spectrographic determination of cadmium, lead, and iron in zinc, B., 425.
- Smith, Donald M. See Stewart, T. D.
- Smith, E. A., rolled gold; its origin and development, B., 913.
- Smith, E. C., coagulation of muscle-plasma, A., 238.
- Smith, E. C., and Moran, T., formation of lactic acid in desiccated amphibian muscles, A., 368.
- Smith, Earle, C., and Central Alloy Steel Corporation, manufacture of steel, (P.), B., 952.
- Smith, E. H., iodometric determination of copper, A., 182.
- Smith, E. H. See also Wenner, F.
- Smith, E. R., chloroplatinate-chloroplatinite electrode, A., 1525.
- Smith, E. S. C., geology of Maine. IV. Geology of the Catahdin area. I. A new rhyolite from the State of Maine, A., 316.
- Smith, E. W., liquid purification of coal gas by ammonia, B., 44.
- review of the Koppers "C.A.S." process as applied to British conditions, B., 89.
- [coal]-gas dehydration, B., 749.
- Smith, E. W. See also Hodgson, H. H.
- Smith, F. B., nitrate-assimilating power of the soil, and some nitrate-assimilating soil bacteria, B., 575.
- Smith, F. C., and Marrack, J. R., ultra-violet absorption spectra of serum-proteins; specific extinction coefficient of serum-pseudoglobulin, A., 943.
- Smith, F. C. See also Marrack, J. R.
- Smith, F. D., magnetostriiction constant for alternating magnetic fields, A., 673.
- Smith, F. D. See also Blicke, F. F.
- Smith, G. B. L., Wartman, P., and Browne, A. W. [with Mason, C. W.], azidodithiocarbonic acid. VI. Salts of copper, silver, gold, zinc, cadmium, mercury, thallium, lead, and bismuth, A., 1139.
- Smith, G. F., [manufacture of] magnesium perchlorate, (P.), B., 239.
- Smith, G. F., and Hockenyos, G. L., determination of carbon in high-melting alloys, using the high-frequency induction furnace, B., 376.
- Smith, G. F. See also Koch, W. W.
- Smith, G. H., factors affecting the deposition of dental calculus, A., 1206.
- Smith, G. McP. See Huffman, E. H., and Salstrom, E. J.
- Smith, G. W., and Reyerson, L. H., adsorption of complex ammonium ions by silica gel, A., 991.
- Smith, H. A., and Lawes' Chemical Manure Co., Ltd., fumigating apparatus, (P.), B., 842.
- Smith, H. B., and Babcock & Wilcox Co., utilisation of waste heat, (P.), B., 398.
- Smith, H. D. See McLennan, J. C.
- Smith, H. G. See Carman, J. S., McBain, J. W., Magee, M. C., and Mattill, H. A.
- Smith, H. W., absorption and excretion of water and salts by marine teleosts, A., 1209.
- metabolism of the lung-fish, *Protopterus aethiopicus*, A., 1311.
- Smith, H. W., and White, T. A., distribution ratios of organic acids between water and organic liquids, A., 150.
- Smith, J. A. B. See Bott, H. G.
- Smith, J. E. See Dawson, H. M.
- Smith, J. F. See Kermack, W. O.
- Smith, J. G., and Gile, P. L., adsorption of anions of acid dyes by soil colloids, A., 1514.
- Smith, J. H. C., and Spoehr, H. A., carotene. I. Oxygen equivalent, A., 920.
- carotene. II. Volatile fatty acids obtained by oxidation of carotene and xanthophyll, A., 920.
- Smith, J. K., and Granular Iron Co., manufacture of steel, (P.), B., 464.
- Smith, J. M., ore-reduction furnace [for mercury ores], (P.), B., 669.
- Smith, J. N. See Clark, F. G.
- Smith, J. W., carbureting or mixing devices for air and liquid fuel, applicable also to the mixing of liquids or gases together, (P.), B., 499.
- Smith, L. See Imperial Chem. Industries, Ltd.
- Smith, L. E. See La Forge, F. B.
- Smith, L. H. See Smith, R. S.
- Smith, L. I., [preparation of] 1:2:4:5-tetramethylbenzene (durene), A., 758.
- [preparation of] duroquinone, A., 779.
- Smith, L. I., and Lund, A. P., polymethylbenzenes. IV. Preparation and physical properties of ψ -eumene [1:2:4-trimethylbenzene], A., 1566.
- Smith, L. I. See also MacDougall, F. H.
- Smith, L. P., emission of positive ions from tungsten and molybdenum, A., 514.
- Smith, L. T., and Hercules Powder Co., separation of α -terpineol from pine oil, (P.), B., 967.
- Smith, M. A., control of certain fruit diseases with "flotation sulphurs," B., 1042.
- Smith, M. C., comparative nutritive value of yellow maize and the grain sorghums hegari and yellow milo, A., 1070.
- quantitative comparison of the vitamin-A of yellow maize and the grain sorghums hegari and yellow milo, A., 1070.
- Smith, M. E. See Sure, B.
- Smith, M. I., and Elvove, E., action of irradiated ergosterol in the rabbit, A., 257.
- Smith, M. J., and Stohman, E. F., chemical and biological methods of ergot assay, A., 1471.
- Smith, N. C., determination of egg in ice-cream, B., 837.
- Smith, N. R., and Humfeld, H., effect of rye and vetch green manures on the microflora, nitrates, and hydrogen-ion concentration of two acid and neutralised soils, B., 1001.
- Smith, O., effect of various treatments on the carbon dioxide and oxygen in dormant potato tubers, A., 1071.
- Smith, O. H. See Naugatuck Chem. Co.
- Smith, R. B., Jurist, A. E., and Christiansen, W. G., p_H studies of neocarphenamine, B., 217.
- Smith, R. H., tank-mixture method of using oil spray, B., 785.

- Smith, R. S., De Turk, E. E., Bauer, F. C., and Smith, L. H., soils of Logan, Whiteside, Henry, Morgan, Douglas, and Coles Counties, B., 634.
- Smith, S., mixing, grinding, and refining of paints and enamels, B., 778.
- Smith, Stanley, extension of the spectrum of Ti II, A., 389. spectra of doubly- and trebly-ionised lead, A., 1228.
- Smith, Sydney, digoxin, a new *Digitalis* glucoside, A., 583.
- Smith, Sydney, and Timmis, G. M., alkaloids of ergot. I., A., 1050.
- Smith, Sydney. See also Wellcome Foundation, Ltd.
- Smith, S. C., [filter] fabric and treatment of subdivided materials, (P.), B., 400*.
- electrolytic recovery of metals [nickel], (P.), B., 515*.
- treatment of nickeliferous material [South African copper-nickel-platinum concentrates], (P.), B., 823*.
- Smith, S. C., and Chemical & Metallurgical Corporation, Ltd., conversion of lead sulphate and lead chloride into lead carbonate, (P.), B., 48*.
- Smith, W., and Expanded Metal Co., Ltd., welding lead, (P.), B., 670.
- coating, impregnating, or alloying metals and other materials with aluminium and aluminium alloys, (P.), B., 773*.
- Smith, William, Thomas, J., and Scottish Dyes, Ltd., [alkylation and aralkylation of] amino-derivatives [especially of vat dyes and their intermediates], (P.), B., 136.
- production of anthraquinone derivatives [halogenated indanthrones], (P.), B., 810.
- Smith, William, Willmott, S. G., Thomas, J., and Scottish Dyes, Ltd., production of dyes and intermediates [of the anthraquinone series], (P.), B., 1144.
- Smith, W. A. See Pneumatic Conveyance & Extraction, Ltd.
- Smith, W. C., and Primos Lead Co., reclaiming battery-plate material, (P.), B., 869.
- Smith, W. C., and Veitch, F. P., sp. gr. and Baumé gravity tables for turpentine, B., 469.
- Smith, W. D., viscosimeter and display device, (P.), B., 1009.
- Smith, W. D., and Smith, B. A., preparation of cereal food, (P.), B., 791.
- Smith, W. F., and Kingsport Press, Inc., non-tarnishing metallic ink, (P.), B., 871.
- Smith, W. J., and Perry, A. T. H., damp-proof matches, (P.), B., 122.
- Smith, W. O., and Crane, M. D., Jamin effect in cylindrical tubes, A., 686.
- Smith, W. S., and Garnett, H. J., magnetic alloy, (P.), B., 334*, 379*.
- Smith, W. S., Garnett, H. J., Channon, H. C., and Dean, J. N., electrical insulating materials [comprising rubber], (P.), B., 723.
- Smith, W. S., Garnett, H. J., and Dean, J. N., treatment of gutta-percha, balata, and similar thermoplastic natural and artificial products and manufacture of moulded articles therefrom, (P.), B., 522.
- manufacture of electric insulating materials, (P.), B., 954.
- manufacture of articles [e.g., cables covered with gutta-percha] from thermoplastic materials, (P.), B., 1040.
- manufacture of electric cables, (P.), B., 1117.
- Smith, W. S., Garnett, H. J., Dean, J. N., Channon, H. C., Gardner, W., and Wilson, H. F., electrical insulating materials, (P.), B., 108.
- Smith, W. S., Garnett, H. J., Dean, J. N., Habgood, B. J., and Channon, H. C., electrical insulating materials, (P.), B., 673.
- electrical insulating materials [comprising rubber], (P.), B., 723, 1160.
- Smith, W. S., Garnett, H. J., and Holden, J. A., metallic alloy, (P.), B., 200*.
- Smith, W. T., and Cosbie, A. J., comparative brewing trials with new and commercial varieties of hops, B., 389.
- Smith, W. W., casting of readily oxidisable metals, (P.), B., 1075.
- Smithells, A., Whitaker, H., and Holmes, T., influence of hydrogen and water vapour on ignition of carbon monoxide, A., 428.
- Smithells, C. J., photography on copper, B., 883.
- Smits, A., pseudo-components of hydrogen. I., II., and III., A., 131, 293, 393.
- passivity and over-voltage, A., 299.
- inner equilibria in the solid phase. I., A., 698.
- theoretical significance of the passivity of metals, A., 999.
- intensive drying of liquids, A., 1102.
- theoretical significance of passivity, A., 1257.
- system water-silicon dioxide. I., A., 1521.
- Smits, A., and De Gruyter, J., complexity of nitrogen, A., 659.
- Smits, A., and Deinum, H. W., complexity of phosphorus pentoxide. I. and II., A., 1096, 1251, 1372.
- Smits, A., Gerding, H., and Hertogh, (Frl.) W., complexity of nitrogen. II., A., 1096.
- Smits, A., and Macgillivray, (Mlle.) C. H., [radioactivity of lead exposed to solar radiation], A., 517.
- Smits, A., and Swart, E., exact determination of vapour tensions, A., 185.
- Smits, A., Swart, E., and Bruin, P., influence of intensive drying on inner equilibria. V., A., 161.
- Smoker, E. H. See Burgess, W. M.
- Smoleński, K., Włostowska, W., and Młynarski, A., pectins. VIII., A., 858.
- Smolik, L., double electrode for micro-determination of hydrogen-ion concentration, A., 386.
- photoactivity of [Czechoslovakian] soils, B., 575.
- amount of "lipids" in the principal Moravian soils, B., 576.
- determination of p_H values in soils, B., 578.
- cylinder for separating fine soil particles by decantation, B., 582.
- significance of the volume-weight for soil science and plant nutrition, B., 630.
- Smoot, C. H., centralised control for gas producers, (P.), B., 1139.
- Smorodincev, J. A., disinfecting properties of chloropicrin, A., 503.
- occurrence of methylguanidine in the animal organism. IV. "Reineckate" of methylguanidine, A., 945.
- carnosine "reineckate," A., 1194.
- Smorodincev, J. A., and Adova, A. N., nature of proteases, A., 956.
- nature of proteases. V. Relations between activity of enzymes and surface tension of their solutions, A., 1065.
- concentration of pepsin and chemistry of its action, A., 1475.
- Smorodincev, J. A., Adova, A. N., and Barmina, O. N., nature of proteases. IV. Does the p_H optimum in the process of protein digestion depend on the activity of the enzyme preparations? A., 1065.
- Smorodincev, J. A., and Glagolev, K., digestion of cdestin by pepsin in presence of quinine hydrochloride, A., 500.
- Smorodincev, J. A., and Sveschnikova, E. A., effect of various substances of the quinine group on the enzymic functions of the organism. XIII. Peptic digestion of muscle-protein in presence of quinine, A., 641.
- Smorodincev, J. A. See also Adova, A. N.
- Smyth, C. P., properties of dielectrics. I. Electric moment and molecular structure, A., 841.
- Smyth, C. P., and Rogers, H. E., dielectric polarisation of liquids. VIII. Acetic and butyric acids, A., 841.
- dielectric polarisation of liquids. IX. Electric moments of alkyl halides and halogenated methanes, A., 1093.
- Smyth, C. P., and Stoops, W. N., dielectric polarisation of liquids. VI. Ethyl iodide, ethyl alcohol, *n*-butyl alcohol, and *n*-octyl alcohol. VII. Isomeric octyl alcohols and molecular orientation, A., 135.
- Smyth, C. P. See also Dornste, R. W.
- Smyth, H. D., and Arnott, E. G. F., canal-ray and electron excitation of the band spectrum of nitrogen, A., 1494.
- Smyth, H. D., and Stueckelberg, E. C. G., primary and secondary ions in oxygen and carbon dioxide, A., 975.
- ionisation of carbon dioxide by electron impact, A., 1346.
- Smyth, H. D. See also Stueckelberg, E. C. G.
- Smyth, H. F., determination of small amounts of benzene vapours in air, B., 265.
- Smythe, C. A. See Cochrane, J. R.
- Smythe, C. V., and Schmidt, C. L. A., combination of iron with proteins, amino-acids, and related compounds, A., 1303.
- Smythe, E. H., and Weeks, E. G., low-temperature carbonisation of fuel, and its combination with the production of electricity, B., 4.
- Snapp, O. I., preliminary report on *p*-chlorobenzene solutions for the control of the lesser peach borer (*Algeria pictipes*, G. and R.), B., 962.
- Snapp, O. I., and Swingle, H. S., injury of peach trees with *p*-dichlorobenzene, B., 297.
- Snapper, I., parathyroid tumour and changes of the bones, A., 1468.
- Snedden, W. W. See Stevens, T. S.
- Snee, W. E. See Papish, J.
- Snell, A. M., and Greene, C. H., serum-calcium in jaundice, A., 948.
- Snell, A. M., and Wales, F., diffusibility of the calcium in blood-serum under normal and pathological conditions, A., 944.
- Snell, F. D., phosphoric acid for determination of m. p., A., 1152.

- Snell, *F. D.*, flash points of mixed solvents, *B.*, 1015.
 Snell, *H. S.*, and Western Electric Co., Inc., production of moulding compound, (P.), *B.*, 872.
 Snelling, *W. O.*, [carbon] pigment, (P.), *B.*, 132.
 [contact] current-rectifying device, (P.), *B.*, 428.
 current-rectifying device, (P.), *B.*, 672.
 Snelling, *W. O.*, Koch, *C. B.*, and Trojan Powder Co., manufacture of cordeau, (P.), *B.*, 442.
 Snelling, *W. O.*, Wyler, *J. A.*, and Trojan Powder Co., ammonium nitrate explosive and its manufacture, (P.), *B.*, 796.
 Snelling, *W. O.* See also Davis, *T. L.*
 Snethlage, *H. C. S.*, detection and determination of benzoic and salicylic acids, particularly in foodstuffs, *B.*, 94.
 detection and determination of formic acid and formaldehyde in vinegar, *B.*, 164.
 detection and determination of nitrates and nitrites in meat foods, *B.*, 165.
 simplification of analytical methods, *B.*, 165.
 Snia-Viscosa, machines for continuously washing and treating, by a wet process, textile fibres and threads, (P.), *B.*, 860.
 Snider, *G. G.* See Hoagland, *R.*
 Snider, *R. H.* See Bloor, *W. R.*
 Snijder, *G.*, production of Portland cement, (P.), *B.*, 192.
 Snoek, *J. L., jun.*, test of quantum mechanics of hydrogen by measurements of absorption in the Balmer series, *A.*, 271.
 Snow, *C. P.*, vibration-rotation spectra of diatomic molecules, *A.*, 13.
 infra-red investigations of molecular structure. V. Simplest kind of polyatomic molecule, *A.*, 1089.
 Snow, *C. P.*, and Rawlins, *F. I. G.*, colours of inorganic salts, *A.*, 519.
 Snow, *C. P.*, and Rideal, *E. K.*, infra-red investigations of molecular structure. IV. Overtone of nitric oxide, *A.*, 273.
 Snow, *C. P.* See also Lowry, *T. M.*
 Snow, *P. H.*, production of lubricating oil or grease, (P.), *B.*, 519.
 Snow, *R. D.* See Swann, *S.*
 Snyder, *F. H.*, and Newkirk, *E. D.*, manufacture of ammonia [from hydrogen and nitrogen]; preparation of ammonia-factor gases, (P.), *B.*, 1108.
 Snyder, *L. W.* See Shaw, *M. B.*
 Snyder, *R. A.* See Kraner, *H. M.*
 Snyder, *R. D.* See Crawford, *R. B. P.*
 So, *T.*, hydrolysis of benzoyl derivatives of amino-acids by histozyme, *A.*, 1619.
 Sobolevskaya, *O. V.*, peppermint oil of the Saratov district, *B.*, 1046.
 Sobotka, *H.*, rôle of esterification in lipin metabolism, *A.*, 1212.
 Sobotka, *H.*, and Reiner, *M.*, the Hagedorn-Jensen method applied to various sugars; relation of reducing power to configuration, *A.*, 801.
 selective fermentation. I. Alcoholic fermentation of dextrose, levulose, and mannose mixtures, *A.*, 1318.
 Sobotka, *H.* See also Lichtman, *S. S.*
 Sobrinho, *M. J. L.*, felt and felt-like materials [containing silk residue, etc.] and hats, etc., or materials made therefrom, (P.), *B.*, 139.
 Sobue, *H.* See Atsuki, *K.*
 Sobyenin, *N. P.*, and Saakov, *S. G.*, indicator, *A.*, 1143.
 Socias, *L.* See Torres, *C.*
 Sociedad Minera "Cuprum," apparatus for treatment of ores and metallurgical products, especially lead and silver materials with concentrated chloride solutions, (P.), *B.*, 199.
 Società Anonima per l'Impiego Razionale degli Olii Combustibili I.G.N.E.A. See Taragno, *P.*
 Società Invenzioni Brevetti Anonima, continuous machines for making paper and other sheet material from pulp, (P.), *B.*, 415.
 Società Italiana Pirelli, manufacture of rubber articles, (P.), *B.*, 205, 1122.
 manufacture of rubber goods, (P.), *B.*, 782.
 Società Italiana Pirelli, and Emanueli, *L.*, apparatus for degasifying liquids, (P.), *B.*, 888.
 Società Italiana Pirelli, and Pestalozza, *U.*, manufacture of rubber, (P.), *B.*, 829.
 Società Italiana Ricerche Industriali (S.I.R.I.), production of gases rich in carbon monoxide, (P.), *B.*, 498.
 Société Acieries de Gennevilliers. See Bunet, *P. E.*
 Société Alsacienne de Constructions Mécaniques, drying and pulverisation of slimy or tacky substances suspended in liquids, (P.), *B.*, 268.
 Société Alsacienne de Produits Chimiques, dyeing and printing, (P.), *B.*, 506.
 Société Alsacienne de Produits Chimiques. See also Mayor, *J. P. P.*
 Société Alther & Guex, and Hugentobler, *W.*, printing of fabric with pigment dyes, (P.), *B.*, 281.
 Société Anonyme l'Agence Métallurgique, apparatus for producing ozone, (P.), *B.*, 336.
 Société Anonyme des Appareils de Manutention et Fours Stein, burners for pulverised or gaseous fuel, (P.), *B.*, 650.
 Société Anonyme des Appareils de Manutention et Fours Stein. See also Niemkoff, *G.*
 Société Anonyme d'Applications des Gaz Liquéfiés, opening and closing of cylinders or capsules for compressed or liquefied gas, (P.), *B.*, 889.
 Société Anonyme des Ateliers de Construction & Fonderies de Jeumont, apparatus for drawing glass in sheets, (P.), *B.*, 190.
 Société Anonyme Brevetti "Cicali," production of hydrogen [from mixtures of it with carbon monoxide], (P.), *B.*, 58.
 Société Anonyme des Chaux et Ciments de Lafarge et du Teil, hydraulic binding medium [impervious to sea- and hard water], (P.), *B.*, 1030.
 Société Anonyme Commentry-Fourchambault & Decazeville, [chromium-nickel-iron] alloys, (P.), *B.*, 198.
 Société Anonyme Constructions Electriques Patay, electrically-driven centrifugal apparatus, (P.), *B.*, 845.
 Société Anonyme des Distilleries des Deux-Sèvres, dehydration of aqueous formic acid, (P.), *B.*, 8.
 separation of liquids by distillation, (P.), *B.*, 126.
 separation of organic liquids from mixtures containing same, (P.), *B.*, 135.
 saccharification of wood and other cellulosic materials, (P.), *B.*, 185, 236.
 manufacture of concentrated acetic acid, (P.), *B.*, 232.
 continuous extraction of acetic acid from its aqueous solutions, (P.), *B.*, 275.
 recovery of anhydrous fatty acids from dilute aqueous solutions, (P.), *B.*, 409.
 extraction of acetic acid from pyroligneous acid, (P.), *B.*, 452, 807.
 separation of anhydrous acetic acid from its aqueous solutions, (P.), *B.*, 602.
 manufacture of crotonaldehyde and its homologues, (P.), *B.*, 807.
 manufacture of acetic acid and lactic acid by fermentation, (P.), *B.*, 880.
 concentration or extraction of organic acids occurring in aqueous solution, (P.), *B.*, 939.
 Société Anonyme des Distilleries des Deux-Sèvres. See also Ricard, *E.*
 Société Anonyme d'Eclairage et d'Applications Électriques. See Blaringhem, *A. J. A.*
 Société Anonyme Electrochimique Phœbus, and De Ploëg, *S.*, manufacture [encasing the agglomerates] of dry batteries [in braid], (P.), *B.*, 567.
 Société Anonyme des Engrais et Noir Animal, active carbon of high density, (P.), *B.*, 273.
 regeneration of absorptive carbon, (P.), *B.*, 273.
 gas purification (removal of benzol), (P.), *B.*, 312.
 Société Anonyme des Établissements Industrielles de E. C. Grammont et de A. Grammont, manufacture of thermionic cathodes, (P.), *B.*, 824.
 Société Anonyme d'Études et de Constructions d'Appareils Mécaniques pour la Verrerie, machines for working glass, (P.), *B.*, 990.
 Société Anonyme d'Explosifs et de Produits Chimiques, manufacture of alkyl halides, glycols, and alcohols from cracked gases of hydrocarbon oils, (P.), *B.*, 232.
 Société Anonyme Fabriques Chimiques Arenella, production of vegetable fats from grape marc, (P.), *B.*, 518.
 Société Anonyme des Forges et Acieries de Firminy, malleable iron, (P.), *B.*, 197.
 Société Anonyme Française Compagnie Industrielle des Moteurs à Explosions (C.I.M.E.). See Perrier, *D.*
 Société Anonyme Hollando-Belge pour la Fabrication du Coke, separation of hydrogen sulphide and hydrogen cyanide from gases, (P.), *B.*, 312.
 Société Anonyme des Manufactures des Glaces et Produits Chimiques de St.-Gobain, Chauny & Cirey, polishing of glass, (P.), *B.*, 59.
 manufacture of refractory materials having a base of bauxite, (P.), *B.*, 60.

- Société Anonyme des Manufactures des Glaces et Produits Chimiques de St.-Gobain, Chauny & Cirey**, manufacture of abrasive materials having an alumina base, (P.), B., 103.
 manufacture of glass transparent to ultra-violet rays, (P.), B., 145.
 fertiliser, (P.), B., 209.
 processes and apparatus for tempering glass, (P.), B., 948.
- Société Anonyme des Manufactures des Glaces & Produits Chimiques de St.-Gobain, Chauny & Cirey**. See also Long, B.
- Société Anonyme M. Naef & Cie.**, production of *cyclohexenecarbaldehydes*, and *cyclohexenecarboxylic acids*, which contain at least one dialkylated ring-carbon atom, (P.), B., 981.
- Société Anonyme la Nouvelle Montagne**, preparation of blende for sintering, (P.), B., 379.
 granulation of blende, (P.), B., 617.
 blende-sintering process, (P.), B., 1115.
- Société Anonyme d'Ougrée Marihay**, catalysing apparatus, (P.), B., 493.
 apparatus for catalytic transformation of gases, (P.), B., 845.
- Société Anonyme des Produits Oléiques**. See Rozieres, J. A. L.
- Société Anonyme Progil**, motor fuel, (P.), B., 181.
 wool dyeing, (P.), B., 185.
- Société Anonyme des Sucreries Ternynck**, automatic machines for mixing different products in specified proportions, (P.), B., 693.
- Société Anonyme des Sucreries Ternynck, and Ternynck, L.**, agglomeration process for [beet] pulp from sugar factories and a resulting product intended for cattle feeding, (P.), B., 216.
- Société Barbou & Cie.** See Barbou, P. A.
- Société des Brevets Étrangers Lefranc & Cie.**, ketone fuels, (P.), B., 753.
- Société des Brevets Étrangers Lefranc & Cie., and "Le Ketol,"** production of fermentable sugars [from cellulose], (P.), B., 1127.
- Société Chimique de la Grande-Paroisse (Azote & Produits Chimiques)**, production of oxygen-containing organic compounds [formic acid, etc., by hydration of carbon monoxide], (P.), B., 274.
 production of ammonia carbonate, (P.), B., 323.
 chemical fertilisers, (P.), B., 923.
 manufacture of compound fertilisers and of sodium bicarbonate, (P.), B., 924.
- Société Chimique de la Grande Paroisse (Azote & Produits Chimiques) and L'Air Liquide Société Anonyme pour l'Étude et l'Exploitation des Procédés G. Claude**, regeneration of carbonated ammoniacal solutions, (P.), B., 904.
- Société Chimique de la Grande Paroisse (Azote & Produits Chimiques)**. See also Claude, G., and L'Air Liquide Soc. Anon.
- Société Chimique de la Seine, and Szidon, F.**, electrolytically depositing chromium, (P.), B., 20.
- Société Civile pour l'Étude de la Photographie et de la Cinématographie en Couleurs**. See Soc. Franç. Cinéchromatique (Proc. R. Berthon).
- Société Coloniale Anversoise Société Anonyme**. See Taelen, J. C. van der.
- Société Commerciale des Ciments de la Croisette Société Anonyme**, cement mixture of high mechanical strength, (P.), B., 770.
- Société E. & L. Constant**. See Constant, E.
- Société de Construction d'Appareils pour Gaz à l'Eau et Gaz Industriels**. See Humphreys & Glasgow, Ltd.
- Société d'Electrochimie, d'Electrometallurgie, et des Aciéries Electriques d'Ugine**, manufacture of aluminium-silicon alloys, (P.), B., 198, 514.
 purification of gases [e.g., nitrogen and hydrogen for ammonia synthesis], (P.), B., 713.
- Société pour l'Enrichissement et l'Agglomération des Minerais**, roasting and agglomeration of fine ore or roasting residues, (P.), B., 379.
- Société des Établissements Barbet**, concentration of fruit juices and extraction of by-products therefrom, (P.), B., 118.
 removal of benzol from coal gas, (P.), B., 178.
 apparatus for the rectification of alcohol, acetone, etc., (P.), B., 213.
 production of dextrose and levulose from grape juice, (P.), B., 299.
 manufacture of concentrated grape juice [to obtain dextrose], (P.), B., 478.
- Société des Établissements Industrielle de E. C. et de Alexandre Grammont**, cathode for electron-discharge devices, (P.), B., 201.
- Société d'Études pour le Camphre de Synthèse**, manufacture of pinene hydrochloride and of camphor therefrom, (P.), B., 440.
- Société d'Études Chimique pour l'Industrie**, manufacture of thio-carbamide from cyanamide, (P.), B., 409.
- Société d'Études pour les Colonies et l'Étranger, and Juhel, M.**, carbonisation apparatus for vegetable matter, (P.), B., 273.
- Société d'Études Minières & Industrielles**, purification of nitrogen, hydrogen, or mixtures thereof, (P.), B., 143.
- Société d'Études Minières & Industrielles**. See also Urfer, C.
- Société d'Études Scientifiques et d'Entreprises Industrielles, and Voitureur, E.**, manufacture of phospho-nitrogenous manures, (P.), B., 924.
- Société l'Exploitation des Procédés Petrus**, manufacture of cement, (P.), B., 665.
- Société d'Exploitation d'Usines Metallurgiques**. See Gorgeot, H. P. J. C.
- Société pour la Fabrication de la Soie "Rhodiaseta,"** treatment of artificial silk, (P.), B., 319.
 treatment [delustring] of films, spun threads, and fabrics containing cellulose esters or ethers, (P.), B., 1107.
 manufacture of [crêped] fabrics of or comprising artificial silk, (P.), B., 1107.
- Société Financière & Commerciale Société Anonyme**, making pattern collections of textile print and dye works, (P.), B., 506.
- Société de Fours à Coke et d'Entreprises Industrielles**, retort with rotating base for the low-temperature distillation of coal, sawdust, etc., (P.), B., 176.
- Société Française des Celluloses Barbou & Co.**, regeneration of sulphite-cellulose waste liquors, (P.), B., 236.
- Société Française Cinéchromatique (Proc. R. Berthon), and Société Civile pour l'Étude de la Photographie et de la Cinématographie en Couleurs**, [tri-colour filter-selector for] colour photography, (P.), B., 588.
- Société Française de Cinématographie et de Photographie Films en Couleurs Keller-Dorian**, colour photography, (P.), B., 218.
 process and apparatus for reproducing cinematograph films in colours, (P.), B., 218.
- Société Française des Produits Aromatiques (Anciens Établissements Gattefossé)**. See Gattefossé, M.
- Société Française de Sucreries (Brevet et Proc. Deguide)**, production of barium hydroxide, alkali hydroxide or carbonate, and hydrochloric acid from barium sulphate [silica, and alkali chloride], (P.), B., 282.
- Société du Gaz de Paris**, refining of benzol, (P.), B., 704.
 refining benzene, (P.), B., 853.
- Société Générale des Chaux et Ciments**. See Andrieux, P. J. J.
- Société Générale de Fours à Coke Système Lecocq Société Anonyme**. See Lecocq, E.
- Société Industrielle de Landrecies, and Mariller, C.**, utilisation of waste waters from starch manufacture, (P.), B., 211.
- Société Internationale des Combustibles Liquides**, improving the economy of operating a coke-oven plant by running a Bergius hydrogenation plant in co-operation therewith, (P.), B., 131.
 production of liquid hydrocarbons by hydrogenation of coal, (P.), B., 132.
- Société Internationale des Combustibles Liquides, and Deutsche Bergin-Akt.-Ges. für Kohle & Erdölchemie**, motor fuel, (P.), B., 48.
- Société Internationale des Procédés Prudhomme**, purification and enrichment of gases and vapours derived from the distillation of inferior fuels, for subsequent catalytic conversion into synthetic fuels, (P.), B., 230.
- Société Internationale des Procédés Prudhomme**. See also Prudhomme, E. A.
- Société Internationale des Procédés Prudhomme-Houdry**, catalytic hydrogenation of heavy hydrocarbons, tars, crude petroleum, etc., (P.), B., 806.
- Société Internationale des Procédés Prudhomme-Houdry**. See also Joseph, A.
- Société Lorraine des Aciéries de Rombas**, manufacturing, from by-products, ferrous bricks for use as iron ore in various metal furnaces, (P.), B., 63.
- Société Maritime et Industrielle**, preparation of a lubricating oil containing rubber, (P.), B., 408.
- Société Metallurgique Chilena "Cuprum,"** recovery of silver or silver and lead together from pure oxides, (P.), B., 107.
 leaching of metals from ores or metallurgical products by treatment with oxidising agents and solvents, (P.), B., 198.
 recovery of silver and lead from their pure oxides, (P.), B., 245.
- Société Minière & Metallurgique de Pennarroya**, manufacture of purified zinc sulphate solutions, (P.), B., 862.

- Société Nobel Française**, preparations of camphor by catalytic hydrogenation of borneol or isoborneol, (P.), B., 591.
- Société en Nom Collectif Electricité Gén. R. Pontière, and Le Clech, J.**, drying of sheets, plates, hanks, etc., (P.), B., 761.
- Société des Produits Belton, and Favresse, M.**, manufacture of artificial masses [for covering floors and walls], (P.), B., 462.
- Société de Produits Chimiques des Terres Rares**, preparation of [mixed] ammonium and potassium phosphates, (P.), B., 57.
- titanium pigment and paint forming durable, (P.), B., 110.
- Société Quartz & Silice.** See George, H.
- Société de Recherches et d'Exploitations Pétrolifères**, activation of carbonaceous materials suspended in gases, (P.), B., 1011.
- Société de Recherches et d'Exploitations Pétrolifères.** See also Godel, A.
- Société de Recherches et de Perfectionnements Industriels**, distillation of coal, lignite, etc., having high contents of volatiles, (P.), B., 6.
- wood-impregnating product; impregnation of wood, (P.), B., 1031.
- Société Ricard, Allenet & Cie.** See Ricard, E.
- Société Technique d'Optique et de Photographie (S.T.O.P.)**, production of [composite] photographic prints, (P.), B., 1048.
- Société Usines Chimiques Rhône-Poulenc**, manufacture of cellulose esters, (P.), B., 53, 655, 858, 943.
- treatment of cellulose acetates, (P.), B., 99.
- manufacture of cellulose butyric esters, (P.), B., 319, 760.
- manufacture of dihalogenoethyl esters, (P.), B., 409.
- cellulose solutions and their applications, (P.), B., 504.
- construction of photo-electric cells, (P.), B., 673, 954.
- manufacture of organic acyl halides, (P.), B., 807, 855.
- manufacture of soluble cellulose esters of higher organic acids, (P.), B., 900.
- manufacture of acetic anhydride and acetaldehyde, (P.), B., 939.
- manufacture of compound glass (P.), B., 1029.
- manufacture of preparations possessing intense antirachitic properties, (P.), B., 1169.
- Société des Usines Chimiques Rhône-Poulenc, Établissements Poulenc Frères, Fournau, E., and Tréfouel, J.**, manufacture of the *m*-aminobenzoyl derivative [ester] of dimethylaminopentanol [β -dimethylaminomethyl- β -hydroxybutane; local anaesthetics], (P.), B., 302.
- Société des Usines Chimiques Rhône-Poulenc, Grillet, N. B., and Cottet, E. C.**, condensation products of polyhydric phenols and formaldehyde, (P.), B., 69.
- Société des Usines Chimiques Rhône-Poulenc, Hereward, H. W., Hereward, P. O., and Ehrhardt, E. F.**, manufacture of condensation products of phenols and formaldehyde, (P.), B., 431.
- Société Veuve Bonnet Aîné et ses Fils.** See Bonnet, C.
- Society of Chemical Industry in Basle**, manufacture of [vat] dyes of the dibenzanthrone series, (P.), B., 9.
- improving the [ageing] properties of rubber goods, (P.), B., 27.
- manufacture of basic derivatives of substituted quinoline-carboxylic acids, (P.), B., 167.
- production of dyeings by means of dyes containing metal, (P.), B., 185.
- manufacture of dyes of the polymethine series, (P.), B., 276.
- manufacture of azo-dyes [for cotton], (P.), B., 277.
- manufacture of [azo]-dyes [containing chromium], (P.), B., 277.
- manufacture of coloured varnishes, (P.), B., 293.
- manufacture of [prechromed azo]-dyes, (P.), B., 317.
- manufacture and application of dyes containing metal, (P.), B., 317.
- manufacture of dyes [chromium compounds of triarylmethane and azo-dyes], (P.), B., 317.
- manufacture of artificial resins, (P.), B., 338.
- manufacture of vat dyes [of the dibenzanthrone series], (P.), B., 365, 1060.
- manufacture of [azo]-dyes containing metal, (P.), B., 366, 454.
- production and separation of active substances from glands, (P.), B., 394.
- manufacture of condensation products from 2-methylene-1:3:3-trimethylindolines, (P.), B., 410.
- manufacture of azo-dyes and intermediate products containing the thiazole ring, with the aid of cyanuric halides, (P.), B., 411.
- manufacture of azo-[acid pyrazolone] dyes, (P.), B., 454.
- dyeing of artificial silk of regenerated cellulose, (P.), B., 457.
- production of fast tints on chrome-mordanted fibres, (P.), B., 506.
- Society of Chemical Industry in Basle**, production of dyeings [see colours from 4-hydroxy- β -naphthyl ketones], (P.), B., 506.
- [inhibitor for pickling] treatment of metals with acid liquids, (P.), B., 617.
- manufacture of intermediate products of the benzanthrone series and dyes therefrom, (P.), B., 810.
- immunising textiles to direct-dyeing dyestuffs, (P.), B., 901.
- manufacture of [azo]-dyes and application thereof, (P.), B., 942.
- manufacture of guanidine derivatives, (P.), B., 966.
- manufacture of [metal compounds of trisazo]-dyes, (P.), B., 983.
- immunisation of vegetable fibres to direct dyes, (P.), B., 986.
- [coloured] discharge printing on dyed fabrics, (P.), B., 986.
- manufacture of dyes containing metals, (P.), B., 1018.
- treatment of fibrous materials, (P.), B., 1106.
- manufacture of condensation products from formaldehyde, thiourea, and urea, (P.), B., 1120.
- manufacture of [polymethine] dyes and intermediates therefor, (P.), B., 1144.
- Society of Chemical Industry in Basle, and Andriessens, H.**, separation of acetylene from mixtures of gases, (P.), B., 752.
- Society of Chemical Industry in Basle, Bally, O., and Grossmann, P.**, manufacture of aminoanthraquinone derivatives [dyes for cellulose acetate], (P.), B., 1161*.
- Society of Chemical Industry in Basle, and Bonhôte, G.**, azo-dyes of the pyrazolone series, (P.), B., 898*.
- Society of Chemical Industry in Basle, and Eder, R.**, manufacture of [poly]sulphides of aromatic [carboxylic acid] compounds, (P.), B., 810*.
- Society of Chemical Industry in Basle, and Fränkel, S.**, production of a hormone from female internal secretory organs, (P.), B., 83.
- Society of Chemical Industry in Basle, and Fröhlich, J.**, manufacture of [quinone] dyes, (P.), B., 183.
- Society of Chemical Industry in Basle, Hartmann, M., and Kägi, J.**, manufacture of quaternary ammonium compounds, (P.), B., 51*.
- Society of Chemical Industry in Basle, Hartmann, M., and Klarer, W.**, [inhibitor for pickling] treatment of metals with acid liquors, (P.), B., 1116*.
- Society of Chemical Industry in Basle, Krauer, K., and Hess, G.**, vat dyes of the anthraquinone [dibenzanthrone] series, (P.), B., 942*.
- Society of Chemical Industry in Basle, Mayer, B., and Siebenbürger, H.**, vat dyes and process of making same, (P.), B., 898*.
- Society of Chemical Industry in Basle, Merki, W., and Scheidegger, P.**, extracts of animal or vegetable organs or parts, (P.), B., 1046.
- Society of Chemical Industry in Basle, Posternak, S., and Posternak, T.**, manufacture of (A) phosphorus compound, (n) iron compound, from animal proteins, (P.), B., 216*.
- Society of Chemical Industry in Basle, and Siebenbürger, H.**, manufacture of vat dyes of the violanthrone series, (P.), B., 811*.
- Society of Chemical Industry in Basle, and Stocker, R.**, manufacture of indigoid dyes, (P.), B., 550*.
- Society of Chemical Industry in Basle, and Straub, F.**, manufacture of [acid azo]-dyes containing chromium, (P.), B., 984*.
- Society of Chemical Industry in Basle, Straub, F., Gyr, J., and Kaiser, O.**, manufacture of [azo]-dyes containing metal, (P.), B., 1103*.
- Society of Chemical Industry in Basle, Straub, F., Meyer, Hermann, and Schneider, H.**, manufacture of dyes containing sulphur and chromium, (P.), B., 606*.
- Söderberg, C. W.** See Sem, M. O.
- Söderlund, O., Gram, T., and Technochemical Laboratories, Ltd.**, drying of moist material, (P.), B., 846*.
- Söderman, M.**, precision measurements in the soft X-ray region, A., 1502.
- Söderqvist, J.**, Raman effect for some organic substances, A., 274.
- Söllner, K.**, abnormal osmosis at non-swelling membranes. I. and II., A., 288, 688.
- Söllner, K.** See also Dietzel, R.
- Szrensen, S. P. L.**, constitution of soluble proteins as reversible dissociable systems of components, A., 1603.
- Sofa, F.** See Brunelli, L.
- Sohns, F.** See Freudenberg, K.
- Sohst, O.** See Gen. Aniline Works, Inc.
- Soie de Châtillon**, apparatus for dry-spinning artificial textile fibres, with recovery of the volatile solvents, (P.), B., 318.
- Soini, H.** See Routala, O.

- Sokolov, A. D. See Ushakov, S. N.
 Sokolov, A. V. See Nekrassov, V. V.
 Sokolov, E. A., nitrogen and calcium metabolism in calves during the period of milk feeding, A., 1313.
 Sokolov, G. A. See Dokhlenko, I. I.
 Sokolov, N., chemical characteristics of soils from the experimental fields of the Department of Agriculture of the [Russian] State Institute for experimental Agronomy, B., 575.
 exchange capacity of organic and mineral soil constituents, B., 576.
 Sokolov, P. I. See Sokolova, E. S.
 Sokolov, S. I. See Rakovski, E. V.
 Sokolov, V. A., compensated electrometer for radioactive measurements in buildings infected by radioactive material, A., 1340.
 Sokolova, A. M. See Schorigin, P. P.
 Sokolova, E. S., and Sokolov, P. I., spectrophotometry of aqueous chlorine and bromine solutions, and a method for their analysis, A., 977.
 Sokolova, M. N. See Shukov, I. I.
 Sokolova, N. See Liepatov, S.
 Sokolovski, A. See Volkovich, S. I.
 Solaja, B., gravimetric quantitative separation of aluminium and phosphate ions from manganous, ferrous, calcium, and magnesium ions, A., 1012.
 Šolaja, B., Kranjčević, M., and Kočkar, M., use of ammonium compounds of mercury in quantitative analysis, A., 1149.
 Solano, L., and Moles, E., silicic acids and esters, A., 738.
 Solar Research Corporation, treatment of foods [with solar ultra-violet rays], (P.), B., 1003.
 Solari, A. A. See Sagastume, C. A.
 Soldi, A. See Arnaudo, F.
 Solid Carbonic Co., Ltd., forming gases into solid blocks, (P.), B., 539.
 apparatus [freezing-press] for making carbonic ice [solid carbon dioxide], (P.), B., 663.
 Solignac, M., mineralogical characters of oolitic iron minerals of djebel el Ank, S. Tunisia, A., 1156.
 Sollmann, T. See Oettingen, W. F. von.
 Solodki, F., refining of pine pitch with soda, B., 469.
 Solodki, F. See also Krestinski, V.
 Solomon, D., and Jones, W. M., X-ray investigation of lead-antimony alloys, A., 1359.
 Solomon, E. I. See Holmes, E. G.
 Solomon, K. See Heymann, E.
 Soloviev, L. T. See Oberhard, J. A., and Salaskin, S.
 Solovova, X. See Shouleikin, W.
 Solt, L., [apparatus for the storage and] manufacture of sulphuric acid, (P.), B., 186.
 Soltner, K. See Thoms, H.
 Soltys, A., sublimation apparatus, using sintered glass, A., 1548.
 Solvay Process Co. See Sundstrom, C.
 Somekawa, E. See Nakahara, W.
 Somerville, A. A., Ball, J. M., and Cope, W. H., ageing of vulcanised rubber under varying elongation, B., 112.
 Somerville, A. A., Ball, J. M., and Edland, L. A., autographic stress-strain curves of rubber at low elongations, B., 917.
 Somerville, A. A., and Vanderbilt Co., Inc., R. T., heat treatment of metals, (P.), B., 426.
 Someya, K., potentiometric titration of ceric sulphate, A., 183.
 potentiometric determination of cerium sulphate, A., 313*.
 reduction potentiometry. I. Determination of selenium, tellurium, and gold, A., 561.
 potentiometric studies of reduction. I. Determination of selenium, tellurium, and gold, A., 725.
 Somiya, T., influence of cobalt on the determination of manganese by the bismuthate method; separation of manganese from cobalt by ammonium persulphate, A., 1265.
 determination of the iodine value of oils and fats by thermometric titration, B., 674.
 determination of acetyl value of oils and fats by thermometric titration, B., 777.
 Somiya, T., and Hirano, S., determination of moisture in coal, B., 225.
 determination of volatile matter of Japanese coals by means of the high-temperature analytical balance, B., 889.
 Somiya, T., and Kawai, K., analysis of sodium bismuthate by the gas-volumetric method, A., 184.
 Somiya, T., and Shiraishi, S., application of the neon lamp to photometric titrations, A., 1263.
 Somlo, F., electrolytic reduction of some aromatic acids, A., 87.
 Sommer, E., influence of some non-sugars on the crystallisation of sugar, B., 116.
 Sommer, E. W., and Sommer, H., botulinus toxin. V. Influence of nitrogenous and lipid compounds on the potency of botulinus toxin, A., 115.
 Sommer, F., special refractories for electric furnace linings; sillimanite bricks, B., 820.
 Sommer, H. See Sommer, E. W.
 Sommer, H. H. See Templeton, H. L.
 Sommer, J., melting and esterification of resins, etc., (P.), B., 677.
 Sommer, L. A., explanation of the absorption spectrum of the solar atmosphere, A., 9.
 red radiation of oxygen in the night sky, A., 1226.
 Sommerfeld, A., and Schur, G., photo-effect in the K shell of the atom, with special reference to the acceleration of the photo-electron, A., 391.
 Sommermeyer, A., apparatus for extracting fat and other substances from animal carcasses, slaughterhouse refuse, fish, fish waste, etc., (P.), B., 923.
 extraction of fat or other matters from animal carcasses, slaughterhouse refuse, etc., (P.), B., 1037.
 Somogyi, M., blood filtrates for sugar determination, A., 801.
 nitrogenous substances in zinc filtrates of human blood, A., 1055.
 Somogyi, M. See also Cook, J. E.
 Somov, I. P., apatite and nepheline rock of the Khibin Mts. as a direct fertiliser, B., 784.
 Somoza, E., [bell-pump] gas-suction apparatus for mineral furnaces, (P.), B., 823.
 Sonder, R. A., frequency numbers of elements, and existence of a new periodic system, A., 1341.
 relative abundance of the elements and the existence of nuclear periodicity, A., 1495.
 Sondermann & Co., [sizing of] artificial silk, (P.), B., 238. †
 artificial silk, (P.), B., 319.
 treatment of freshly spun threads of artificial silk, (P.), B., 609.
 wet treatment of yarn, etc., (P.), B., 610.
 Sonn, A., lichen substances. VII. Synthesis of methyl β -oreinol-carboxylate and new synthesis of rhizonic acid, A., 212.
 Sonnenkalb, F. See Hieber, W.
 Sonnino, V., and Sama, P., repair of pneumatic tyres, (P.), B., 113.
 Sonstagen, A. See Prendergast, R. S.
 Sontag, (Mlle.) D. See Palfray, L.
 Soós, A., law of particle projection, A., 156.
 Sopwith, J. See Ryles, E.
 Sorel, A. M. J., distillation and rectification column, (P.), B., 261.
 production of bread, (P.), B., 530.
 Sorg, L. V., adaptability of the quinhydrone electrode to cereal work, B., 683.
 Sorrel, V., Lafont, L. A., and Ugine-Infra, electric furnace, (P.), B., 22*.
 Sorrel, V. See also Infra.
 Sors, P., burning wet precipitates, A., 1153.
 sorrels: new tanning plants; tannin content of species of *Rumex*, B., 1040.
 Sorum, C. H. See Ayres, G. H., Hazel, F., and Judd, R. C.
 Soskin, S., influence of feeding either fat and lipase or lecithin on the sugar excretion of depancreatised dogs, A., 246.
 Sotola, J., biological values and supplementary relations of the proteins in alfalfa [lucerne] hay and in corn [maize] and sunflower silage, B., 342.
 Souček, J., determination of the "effect values" of soil nutrients in soil strata of different depths, B., 341.
 Souders, M., jun., and Brown, G. G., gaseous explosions. VIII. Effect of lead tetraethyl, hot surfaces, and spark ignition on flame and pressure propagation, A., 167.
 Soudure Electrique Autogène Société Anonyme. See Alloy Welding Processes, Ltd., and Meunier, F.
 Soule, F. M. See Wenner, F.
 Soule, K. J., ageing of mechanical rubber goods stocks by various methods, B., 70.
 Soum, M. See Dupont, G.
 Soum, P. M., pine wood, B., 511.
 Soum, P. M. See also Podbreznik, F.
 Souteyrand-Frank, (Mme.). See Chauvenet, E.
 South Metropolitan Gas Co., and Carpenter, C. C., gas producers, (P.), B., 1012.
 South Metropolitan Gas Co., and Pickard, H., manufacture of road-surfacing materials, (P.), B., 1112.

- South Metropolitan Gas Co., Pickard, H., and Hughes, C. M. C., manufacture of materials for use in the construction of roads, roofs, etc., (P.), B., 715, 771.
- South Metropolitan Gas Co. See also Illingworth Carbonization Co., Ltd.
- Southard, J. C., and Andrews, D. H., heat capacities of organic compounds at low temperatures. II. Low-temperature thermostat; thousandth degree copper-constantan thermocouple reference tables from 85° to 310° Abs., A., 533.
- Southcombe, J. E. See Wells, H. M.
- Southern Electro-Chemical Co. See McKee, R. H.
- Southern Manganese Steel Co. See Williams, R. J.
- Southwestern Engineering Co. See Lord, R.
- Soward, H. W. See Wellman Smith Owen Eng. Corp., Ltd.
- Sowler, P. F. C. See Brit. Celanese, Ltd.
- Soyer, B., variation of the cellular permeability of ligneous plant during growth, A., 382.
- Spack, A. See Cornee, E.
- Spacu, G., stereochemistry of diphenyl and its derivatives. III., A., 81.
- Spacu, G., and Suciu, G., rapid micro- and macro-determination of bismuth, A., 184.
- Späuhauer, F. See Emde, H.
- Späth, E., and Berger, F., phytochemically interesting synthesis of *dl*-tetrahydropapaverine, A., 1454.
- Späth, E., Berger, F., and Kuntara, W., synthesis of isoquinoline derivatives, A., 350.
- Späth, E., and Darling, S. F., synthesis of capsaicin, A., 599.
- Späth, E., and Gibian, K., constitution of sappanin, A., 910.
- Späth, E., and Hromatka, O., constitution of conessine, A., 353.
- Späth, E., and Lederer, E., *Harmala* alkaloids: harmaline, harmine, and harman, A., 353.
- syntheses of the isoflavone, ψ -baptigenin, A., 611.
- syntheses of 4-carbolines, A., 1448.
- Späth, E., and Pikel, J., bases from angostura bark; quinoline, 2-methylquinoline, 2-*n*-amylquinoline, and 2-keto-1-methyl-1:2-dihydroquinoline, A., 1049.
- Spalding, J. L., determination of ash [of flour] by direct weighing, B., 584.
- quick ash determination [in flour] by magnesium acetate-alcohol method, B., 584.
- Spangenberg, K., and Neuhaus, A., artificially coloured crystals as examples of the so-called anomalous mixed crystals, A., 682.
- Spanner, H. J., and Doering, U., [gas-filled] electric discharge devices, (P.), B., 996, 1162.
- Sparberg, M. S. See Marvel, C. S.
- Spaul, E. A., activity of the anterior lobe of the pituitary gland, A., 503.
- Spausta, F., detection and determination of carbon disulphide in fuels, B., 802.
- Spausta, F. See also Abel, E.
- Speakman, J. B., elastic properties of wool in organic liquids, A., 418.
- micelle structure of the wool fibre, A., 1370.
- adsorption of water by wool, B., 607.
- Speakman, J. B., and Chamberlain, N. H., thermal conductivity of textile materials and fabrics, B., 607.
- Speakman, J. B. See also Ewles, J.
- Speakman, J. C. See Glasstone, S.
- Spear, E. B. See Thermatomic Carbon Co.
- Specht, N., and Deutsche Gasglühlicht-Auer-Ges.m.b.H., production of permanent [pigments for] paints, (P.), B., 431*.
- Specht, W. See Coehn, A.
- Specketer, H. See I. G. Farbenind. A.-G.
- Spectrum Dyes Proprietary Ltd., dyeing of fabric, (P.), B., 506.
- Spedding, F. H. See Freed, S.
- Speer, J. H. See Hart, M. C.
- Speer, N. E. See Kernot, J. C.
- Speicher, H., ovens and furnaces for the paint and varnish industry, B., 468.
- Speight, E. A. See Imperial Chem. Industries, Ltd.
- Spek, J. van der, determination of the amount of lime which a soil can absorb under prescribed conditions, particularly in Kappen's method, B., 256.
- Spelling, R., utilisation of cellulose ester waste, (P.), B., 708.
- Spence, D., cultivation and preparation of rubber in the United States, B., 520.
- Spence, D., and Intercontinental Rubber Co., treatment of guayule, etc.; extraction of rubber from guayule, etc., (P.), B., 873.
- Spence, J. See Rule, H. G.
- Spence, L. U. See Hurd, C. D.
- Spence, R., and Taylor, Hugh S., chain characteristics of ethylene-oxygen reaction, A., 1000.
- Spencer, A. C. See Standard Oil Development Co.
- Spencer, D. A. See Murray, H. D.
- Spencer, E., apparatus and process for separating or extracting cellulose or paper pulp, (P.), B., 708*.
- Spencer, Edmondson, moonstone from Ceylon and other areas; stability relations of the alkali-feldspars, A., 1397.
- Spencer, G., formation of pectin jellies by sugar, A., 160.
- effect of salts on sugar-pectin jelly-formation, A., 160.
- relation between acids and pectin in jelly formation, A., 418.
- manipulation of jelly strength testing apparatus, A., 418.
- purification and determination of pectin, B., 438.
- Spencer, H. McC. See Upson, Co.
- Spencer, H. W., [continuous] linings for furnace arches, walls, etc., (P.), B., 1097.
- Spencer, H. W., and Liptak Fire-Brick Arch Co., furnace walls, (P.), B., 696.
- Spencer, J. F. See Pring, M. E.
- Spencer, L. T. [with Hey, H. H.], new meteoric iron from Piedade do Bagre, Minas Geraes, Brazil, A., 1156.
- Spencer, L. T. See also Nel, L. T., and Wayland, E. J.
- Spencer, W. D., and Topley, B., chemical kinetics of the system $\text{Ag}_2\text{CO}_3 \rightleftharpoons \text{Ag}_2\text{O} + \text{CO}_2$, A., 39.
- Spengler, O., determination of the true sugar content of carbonation cakes [in beet-sugar factories], B., 477.
- Spengler, O., and Böttger, S., calcium oxalate deposits in evaporators [in beet-sugar factories], B., 260.
- Spengler, O., and Brendel, C., reversion of the natural alkalinity during storage of beet, B., 74.
- behaviour of silicic acid in the purification of [beet] juice, B., 260.
- Spengler, O., and Tödt, F., electrical determination of ash in raw sugar, B., 260.
- Spengler, O., Tödt, F., and Winkler, W., influence of sodium sulphate on the decomposition of sugar when heated in alkaline solutions, B., 259.
- Spengler, O., and Traegel, A., determination of "sugar-soluble" silica in burnt limestone, B., 860.
- Spengler, O. See also Gen. Aniline Works, Inc.
- Sperandeo, A. See Underhill, F. P.
- Sperling, T. See Sauerwald, F.
- Sperrin, J. C. G., manufacture of magnesian cement, (P.), B., 908.
- Sperry, F. W., dehydration of manufactured gas, B., 800.
- Sperry, W. M., lipin excretion. VII. Partition of faecal lipins in bile fistula dogs, A., 364.
- Speter, M., apparatus for m. p. determinations, A., 1152.
- preparation of hypophosphoric acid, A., 1262.
- Speyer, E., and Roell, L. F., action of ozone on hydrogenated and non-hydrogenated bases of the morphine group, A., 623.
- Speyer, E., and Walther, L., action of nitrous acid on morphine and its derivatives, A., 794.
- Spieer, H. N. See Dorr, J. V. N.
- Spicer, W. E. See Bedford, M. H.
- Spieers, Ltd., Goldsmith, J. W., Baker, T. T., and Bonamico, C., colour photography, (P.), B., 1093.
- Spiecker, A. See Tacke, B.
- Spiecker, F. W. See Wolff & Co. Komm.-Ges. auf Akt.
- Spiegel-Adolf, M., denaturation of proteins. II. Effect of heat and of ultra-violet light on the rotatory dispersive powers of pseudo-globulin solutions, A., 101.
- Spielberger, F. See Gossner, B.
- Spier, J. D. See Searth, G. W.
- Spieler, C., dark-field microscopy with many-sided illumination, A., 1548.
- many-sided illumination in the dark field, B., 844.
- Spies, J. R. See Drake, N. L.
- Spijker, P. van't. See Waterman, H. I.
- Spilker, A. [with Born, G.], coal-tar pitch as a binding agent for bituminous coal briquettes, B., 972.
- Spilker, A. See also Ges. f. Teerverwertung m.b.H.
- Spilker, G. See Ges. f. Teerverwertung m.b.H.
- Spiller, E., measurement of capacity for reflexion of glowing tungsten in the ultra-violet part of the spectrum, A., 1228.
- Spillman, W. J., new basis for fertiliser experiments, B., 525.
- Spilsbury, R. S. J., effect of drawing on the temperature coefficient of the electrical resistivity of constantan, B., 20.
- Spindeck, F., determination of beryllium in aluminium-free steel, B., 463.
- determination of titanium in alloy steels, B., 561.

- Spindler, H.**, conversion of methane into formaldehyde, ethylene, and higher hydrocarbons, (P.), B., 360.
 manufacture of an artificial resin from ammonia and carbon monoxide, (P.), B., 384.
 apparatus for producing photochemical radiations, (P.), B., 996.
- Spinntoffabrik Zehlendorf Ges.m.b.H.**, manufacture of artificial silk from viscose, (P.), B., 813.
- Spitalski, E. I., Kacen, I. S., and Klatschko, L. L.**, determination of acetic acid in normal and basic copper acetates, A., 192.
- Spitalski, E. I., and Kononov, B. A.**, decomposition of hydrogen peroxide under the simultaneous influence of several catalysts. I. Iron and copper salts, A., 1530.
- Spitalski, E. I., and Nekrassov, N. I.**, cathodic polarisation of mercury, A., 863.
- Spitta, T.** See **Coehn, I.**
- Spitzin, V.**, chlorination of oxides, alone and in presence of carbon, A., 874.
- Spitzin, V., and Kaschtanov, L.**, tantalum and its compounds, A., 877.
- Spivey, E.** See **Dawson, H. M.**
- Spilait, L.** See **Plotnikov, J.**
- Spinguez, A.** See **Zavaro, N.**
- Spoehr, H. A., and Strain, H. H.**, interconversion of hexoses by means of phosphates: formation of glucose, A., 196.
- Spoehr, H. A.** See also **Smith, J. H. C.**
- Spaelstra, D. B.**, ethereal oil and crystalline ester from the heart wood of *Vouacapoua americana*, Aubl., A., 507.
- Spörer, H., and Kapfhammer, J.**, proline and hydroxyproline in plant proteins, A., 826.
- Sponer, H.**, elementary process in photochemical reactions, A., 1382.
- Sponer, H.** See also **Cordes, H., and Franck, J.**
- Sponsler, O. L.**, cellulose space lattice, A., 672.
- Sporzyński, A.** See **Grischkevitch-Trochimovski, E.**
- Spousta, J., and Kubásek, A.**, fermentation of bread, B., 683.
- Sprague, H. B., and Troxler, L. B.**, improved colour standard for colorimetric determination of chlorophyll, A., 1199.
- Spranger, W.**, permeability [of blood-corpuscles to water], A., 629.
 permeability [of blood-corpuscles to acids and bases]. II., A., 1054.
- Sprawson, E.**, histological evidences of the organic content and reactions of marsupial enamel; note on human enamel, A., 1056.
- Spray, R. S., and Laux, P. C.**, peculiar lactose-fermenting anaërobe from filtered and chlorinated water, B., 488.
- Spreckelsen, O.** See **Piatti, L.**
- Sprenger, A.**, production of highly refractory bodies, (P.), B., 327.
- Sprenger, A.** See also **Durrer, R.**
- Sprenger, G.** See **Schumacher, H. J.**
- Sprenger Corporation m.b.H.**, production of dark oxide coatings on magnesium and its alloys, (P.), B., 505.
- Sprenger Patentverwertung Jirotko m.b.H., O., and Jirotko, B.**, coating aluminium, magnesium, and their alloys with oxides of manganese, (P.), B., 617.
- Sprenger Patentverwertung Jirotko m.b.H., O.** See also **Jirotko, B.**
- Sprent, W. C.** See **Imperial Chem. Industries, Ltd.**
- Spring, F. S.** See **Heilbron, I. M., and Morton, R. A.**
- Springborn, E. von**, treatment of peat, (P.), B., 91.
- Springer, H. B.**, removal of incrustation from [sugar-factory] evaporator and heater tubes, B., 476.
- Springer, J. W.**, electrolytic determination of copper in preserved vegetables, B., 529.
- Springer, R., and Roth, H.**, turbulent internal friction in binary liquid mixtures, A., 1245.
- Springer, W.**, turbidity solidification times of solid fats, B., 516.
- Sprockhoff, M.**, laboratory overflow centrifuge, A., 446.
 relation of the "quality" of potato starch to the formation of mucilage, B., 30.
 effect of the temperature of mixing and the concentration of the potato starch mucilage on the Saare test, B., 77.
 separator [stream-line slime settler], (P.), B., 86.
 determination of the moisture content in potato starch by dielectric measurements, B., 260.
 determination of the starch content in potatoes, B., 299.
 starch slime, B., 436.
 determination of the adhesive power of starch pastes, B., 879.
- Sprockhoff, M., and Parlow**, tenacity of large and small granules of potato starch, B., 436.
- Sproul, J., and Sproul, J. O.**, [wet] separators [for ores, etc.], (P.), B., 693.
- Sproul, J. O.** See **Sproul, J.**
- Sprung, M. M.**, comparative reactivities of some substituted benzyl halides, A., 759.
 comparative reactivities of some chloro- and bromo-nitro-benzenes, A., 759.
- Spruyt, J. P.**, colorimetric determination of the anti-beriberi vitamin content of rice, A., 963.
- Squibb & Sons, E. R.** See **Andrews, L. T., and Christiansen, W. G.**
- Sreenivasaya, M.**, occurrence of mannitol in spike disease of *Santalum album*, A., 1483.
- Sreenivasaya, M., and Sastri, B. N.**, dilatometric studies in enzyme action, A., 1064*.
- Sreenivasaya, M.** See also **Narasimhamurthy, N., and Sastri, B. N.**
- Srikantan, B. S.**, reactions at the surface of hot metallic filaments. I. The reaction $\text{CO}_2 + \text{H}_2 \rightarrow \text{H}_2\text{O} + \text{CO}$ on platinum. II. The reaction $\text{H}_2 + \text{CO}_2 \rightarrow \text{CO} + \text{H}_2\text{O}$ on platinum-iridium alloys. III. The reaction $\text{CO}_2 + \text{H}_2 \rightarrow \text{H}_2\text{O} + \text{CO}$ on platinum coated with barium oxide, A., 550.
 atomic energy and catalyst efficiency, A., 1131.
 reactions at the surface of hot metallic filaments. IV. Reaction $\text{CO}_2 + \text{H}_2 \rightarrow \text{H}_2\text{O} + \text{CO}$ on tungsten and thoriated tungsten, A., 1531.
- Šrol, L.** See **Balaš, F.**
- Staab, A.** See **Dreifuss, M.**
- Staalsyndicaat Ledeboer II.** See **Ledeboer, P. H.**
- Staatlich Sächsische Hüttenwerke, and Rosin, P.**, gasification of finely-divided, earthy, brown coal, (P.), B., 273.
- Stacey, F.** See **Wanklyn, K. P.**
- Stach, H., and König, Walter**, aromatic alkylvinylamines, A., 350.
- Stachorski, K. M.**, latent heat of vaporisation of associated liquids. II., A., 403.
- Stackelberg, M. von**, crystal structure of calcium carbide, A., 672.
 carbides. I. Crystal structure of the carbides MeC_2 , A., 1351.
- Stackhouse, T. H.**, motor fuel, (P.), B., 359.
- Stadeler, A.**, determination of silica in the presence of silicon in ferrosilicon, B., 910.
- Staden, H. A. von.** See **I. G. Farbenind. A.-G.**
- Stadler, H.**, effect of the protein content of barley on quality of dark beer, B., 78.
- Stadlinger, H.**, artificial silk containing nitrogen, B., 318.
 cleaning of oily metal parts on the works' scale, B., 667.
 comparison of various brands of cellulose acetate silks, B., 707.
- Stadnikov, G. L.**, [origin of] coal and petroleum, A., 190.
 origin and nature of bituminous coals, A., 571.
 chemical studies of peat. I. Water in peat, B., 354.
 peat. II. Dehydration of peat, B., 495.
 peat. III. Dry substance of peat, B., 696.
 nature and properties of Siberian boghead [coal], B., 891.
 determination of the sp. gr. and macro-pore volume of coke and other porous substances, B., 974.
- Stadnikov, G. L., and Barysheva, A.**, composition of peat-forming plants and varieties of peat. I., B., 308.
 lignins of some peat-forming plants and of a sphagnum peat. II., B., 591.
- Stadnikov, G. L., and Kaschtanov, L.**, chemical structure of boghead coal, A., 57.
- Stadlberger Hütte A.-G.**, desulphurisation of liquid hydrocarbons, (P.), B., 1014.
- Stäblein, F.**, physical properties of pure chromium steels and tungsten steels, B., 194.
- Stäblein, F., and Hinnüber, J.**, influence of atmosphere, temperature, and nature of protection tube on the stability of platinum thermo-elements, B., 912.
- Stäblein, F., and Krupp Akt.-Ges., F.**, iron-nickel alloy, (P.), B., 722*.
- Stäbler, H.**, experiments with coal-fired pot-annealing furnaces, B., 560.
- Stäckel, W.**, atomic linkings in elements, A., 981.
- Staehlin, O.** See **Gen. Aniline Works, Inc.**
- Staemmler, C.**, action of organic solvents on Wattenbach bright, pitch coal, with especial reference to the tar yield therefrom, B., 933.
- Stärblom, K. E.**, manufacture of ethyl ether, (P.), B., 409.
- Stafford, G. A., and Cork, C. D.**, apparatus for treating crude petroleum, (P.), B., 701.
- Stahel, E.**, supernormal α -particle range for thorium-C, A., 516.
 origin of the high-range α -particles of thorium-C, A., 1233.
- Stahl, L.**, zinciferous slags and the rotary [furnace] process, B., 244.

- Stahn, A., and Michaelis, K., binder for foundry cores, (P.), B., 63.
- Staib, K. See I. G. Farbenind. A.-G.
- Staiger, and Glaubitz, high-temperature yeasts, B., 163.
prolonged fermentation of wort, B., 299.
- Stair, R. See Coblenz, W. W.
- Staley, W. D., and Burgess Battery Co., dry cell, (P.), B., 1161.
- Stålhane, B., borate-alkali halide fusion systems, A., 996.
- Stalhane, O., electric furnace for continuous production of cyanogen compounds, (P.), B., 672.
- Stallmann, B. See Pfeiffer, P.
- Stallmann, O. See Gubelmann, I.
- Stamberger, P., and Auer, L., vulcanisation or sulphurisation of substances capable of vulcanisation or sulphurisation; sulphurisation of organic isocolloids which have been treated with modifying agents, (P.), B., 652.
- Stamberger, P., and Blow, C. M., direct determination of volume contraction, A., 541.
heat of swelling of crude caoutchouc, A., 858.
solvent effect with caoutchouc, A., 1519.
solvation of substances of high mol. wt., particularly rubber, B., 625.
- Stamler, A. E. See Hiller, R. I.
- Stamm, A. J., state of dispersion of cellulose in cuprammonium solvent as determined by ultracentrifuge, A., 1248.
differences between the state of dispersion of isolated wood cellulose and cotton cellulose in cuprammonium solvent, A., 1248.
electrical conductivity method for determining the moisture content of wood, B., 907.
- Stamm, W. See Jander, W.
- Stammers, A. D. See Osborn, T. W. B.
- Stampe, G., and Horn, E., effectiveness of sodium peroxide respirators, B., 1170.
- Stancliffe, C. W., heat-exchange apparatus, (P.), B., 799*.
- Standard Brands, Inc. See Brown, E. B., Hamburger, R., Harrison, A. P., Hixson, A. W., Koepke, H. G., and Jacobsen, K. A.
- Standard Oil Co., treating hydrocarbon oils, (P.), B., 313.
- Standard Oil Co. See also Bartels, E. E., Humphreys, R. E., Lane, R. E., Sullivan, F. W., jun., Voorhees, V., Watts, G. W., Wendt, G. L., and Wilson, R. E.
- Standard Oil Co. of California. See Atkinson, W. V., Chappell, M. L., Faber, J. F., Halloran, R. A., Hanna, R. W., and Parker, C. K.
- Standard Oil Co. of Indiana, distillation of hydrocarbon oils, (P.), B., 358.
- Standard Oil Development Co., manufacture of heavy-metal salts of oil-soluble sulphonic acid and of drying oil compositions, paints, varnishes, etc., containing such salts, (P.), B., 110.
manufacture of liquid oxidation products from hydrocarbon materials, (P.), B., 179.
- Standard Oil Development Co., and Clark, E. M., hydrogenation and distillation of (A) hydrocarbon oils and other carbonaceous material, (B) petroleum oils, (P.), B., 700.
- Standard Oil Development Co., and Fischer, H. G. M., purification of hydrocarbon oils, (P.), B., 231.
- Standard Oil Development Co., Haslam, R. T., and Russell, R. P., destructive hydrogenation of carbonaceous materials, (P.), B., 230.
- Standard Oil Development Co., and Howard, F. A., manufacture of petroleum products of the type known as "white oils," (P.), B., 806.
- Standard Oil Development Co., and Isles, F. W., purification of liquids, (P.), B., 971.
- Standard Oil Development Co., and Loomis, N. E., cracking of petroleum oils, (P.), B., 701.
- Standard Oil Development Co., Spencer, A. C., and Luster, E. W., cracking of (hydrocarbon) oil, (P.), B., 180.
- Standard Oil Development Co. See also Buc, H. E., Fischer, H. G. M., Goodwin, R. T., Hewetson, H. H., Holmes, August, Lewis, W. K., Loomis, N. E., Ward, C. A., Weller, D. R., and Young, P. L.
- Standard Products Corporation. See Whatmough, W. H.
- Standard Telephones & Cables, Ltd., and Bedford, L. H., thermionic cathodes for electric-discharge devices, (P.), B., 428.
introducing alkaline-earth or rare-earth metal vapours into evacuated or partially evacuated vessels [e.g., electric vacuum tubes], (P.), B., 428.
- Standard Telephones & Cables, Ltd., Chaston, J. C., and Norwood, A. F. B., manufacture of [nickel-iron alloy] metal dust, (P.), B., 617.
- Standard Telephones & Cables, Ltd., and Dean, R. S., lead alloy for electric cable sheaths, etc., (P.), B., 1077.
- Standard Telephones & Cables, Ltd., and Field, M. C., dielectric material for submarine cables, (P.), B., 202.
- Standel, E. G. See Saslavsky, J. J.
- Standfast Dyers & Printers, Ltd. See Morton, J.
- Standley, T., [electrolyte for] electrical storage batteries or accumulators, (P.), B., 1161.
- Staněk, V., laboratory apparatus for diffusion experiments [with sugar beet], B., 29.
use of sodium sulphite in place of [sugar] juice sulphitation, B., 75.
- Staněk, V., and Pavlas, P., causes and prevention of crystallisation in raspberry syrups, B., 76.
- Staněk, V., and Šandera, K., use of high-power machines for centrifuging raw [beet] sugars, B., 476.
influence of carbonation on the rate of filtration, B., 925.
- Staněk, V., and Vondrák, J., how much non-sugar from the water used for diffusion passes into the juice [in beet-sugar factories]? B., 298.
use of fats for subduing froth in carbonation, B., 476.
- Stanier, W. A., heat-treatment of locomotive parts, B., 615.
- Staniland, L. N., yeast in the death watch beetle, A., 802.
- Staniland, L. N., Tutin, F., and Walton, C. L., egg-killing washes at the Long Ashton Research Station, B., 681.
- Staniolfabrik Burdorf A.-G. See Humpert, K.
- Stanley, H. M., natural gas and "cracking" gas and their industrial utilisation, B., 496.
polymerisation reactions of ethylene, B., 935.
- Stanley, W. M., and Adams, R., stereoisomerism of diphenyl compounds. IV., A., 762.
- Stanley, W. W. See Marcovitch, S.
- Stanley-Brown, M. See Kugelmass, N.
- Stansfield, A., electric furnace [for smelting iron ores], (P.), B., 672.
- Stansfield, E., Lang, W. A., Sutherland, J. W., Gilbert, K. C., and Zeavin, S., fuels, B., 225.
- Stansfield, E., and Sutherland, J. W., determination of carbon and hydrogen, A., 1604.
classification of Canadian coals, B., 847.
- Staples, E. M., Dowdell, R. L., and Eggenschwiler, C. E., bearing bronzes with additions of zinc, phosphorus, nickel, and antimony, B., 1157.
- Staples, H. O. See Chance, T. M.
- Staples, R. R., and Taylor, A. J., pasture management; seasonal composition of certain South African pasture grasses in relation to their manuring and intensity of grazing, B., 581.
- Starck, W. See Staudinger, H.
- Stark, C. N., Sherman, J. M., and Stark, P., extracellular production of toxin by *Clostridium botulinum*, type B; glucose inhibition of extracellular toxin-producing enzymes of *C. botulinum*; destruction of diphtheria toxin by bacteria, A., 115.
- Stark, F., Zeeman effect and hyperfine structure, A., 652.
- Stark, H. M., coagulation of ferric oxide sols by gas bubbles, A., 1116.
- Stark, H. M. See also Walton, J. H.
- Stark, J., dissymmetry of emission of series lines, A., 1, 263.
axiality of light emission and atomic structure. IV. Dissymmetry of light emission from the effect of an electric field. V. Dissymmetry of light emission in the axial effect of canal rays, A., 512.
axiality of light emission and atomic structure. VI. Consequences of the elementary phenomena of light emission. VII. Physical criticism of a Sommerfeld theorem, A., 654.
polarised and directed X-radiation from a crystal, A., 833, 972.
axiality of light emission and atomic structure. VIII. Normal and polarised X-ray emission from a crystal. IX. Axiality of the valency fields of the carbon and nitrogen atoms, A., 1333.
causality in the behaviour of the electron, A., 1493.
- Stark, P. See Stark, C. N.
- Starkenstein, E., and Weden, H., fate of iron in the organism after administration of complex compounds containing iron organically and inorganically bound, A., 952.
- Starkweather, H. W. See Taylor, G. B.
- Starodoudov, K. F. See Sveschnikov, V. N.
- Starr, A. T., lag in a thermometer when the temperature of the external medium is varying, A., 729.
- Starrs, B. A., and Clarke, L., system potassium sulphate-magnesium sulphate-water, A., 702.

- Starrs, B. A., and Storch, H. H., ternary system potassium sulphate-magnesium sulphate-water, A., 1523.
- Stary, Z., oxygen residue of proteins, A., 628.
- Stary, Z., Kral, A., and Winternitz, R., distribution of electrolytes in serum and cerebrospinal fluid. I. Calcium and magnesium, II. Potassium and sodium, A., 1037.
- Stary, Z. See also Winternitz, R.
- Starzewska, M. See Rogozinski, F.
- Starzewski, S., action of high-tension alternating currents on natural brine-petroleum emulsions, B., 403.
- Stasiak, A., iodine content and biological activity of thyroid preparations, B., 37.
- Stasiak, A., and Zboray, B., evaluation of digitalis, B., 440. [biological] evaluation of digitalis. II. Comparison of Mansfeld's sinus method with the 6-hr. frog or cat method, B., 532.
- St'astný, J., [refractometric determination of formic acid in the presence of acetic acid], A., 192.
- Statham, F. S. See Bennett, G. M.
- Stather, F., "red stains" and "red heat" on salted hides, B., 732.
- Stather, F., and Liebscher, E., bacteriology of the violet specks on salted raw hides, B., 732.
- Stather, F., and Schuck, G., salt stains. II. Grain damage on limed hide and chrome-tanned leather, B., 732.
- Stather, F., Schuck, G., and Liebscher, E., violet specks on salted raw hides, B., 732.
- Statsman, L., chemical composition of scorbutic bones, A., 493.
- Staud, C. J. See Gray, H. Le B., Murray, F. J., jun., and Webber, C. S.
- Stauder, H. T., Eastman, N. J., Harrison, E. P. H., jun., and Cadden, J. F., acid-base equilibrium of the blood in clampsia, A., 241.
- Stauderman, A. E., use of synthetic resins in lacquer and varnish, B., 68.
- Staudinger, H., highly polymerised compounds. XXXII. Structure of organic compounds of high mol. wt. in relation to Kekulé's doctrine of structure, A., 64. highly polymerised compounds. XXVI. Organic colloids, A., 77. highly polymerised compounds. XXVII. Viscosity of polystyrene solutions (I). XXVIII. Degradation of macromolecular polystyrenes. XXIX. Viscosity of polystyrene solutions (II). XXX. Association and solvation of polystyrenes, A., 78. highly polymerised compounds. XXXVII. Viscosity measurements on molecular colloids, A., 695. isoprene and caoutchouc. XX. Colloidal nature of caoutchouc, gutta-percha, and balata, A., 732. highly polymerised compounds. XLVI. Organic chemistry and colloid chemistry, A., 1517. isoprene and caoutchouc. XXI. Molecular size of caoutchouc and the nature of its colloidal solutions, B., 872.
- Staudinger, H., and Ashdown, A. A., highly polymerised compounds. XXXV. Poly- α -phenylbutadiene, A., 592.
- Staudinger, H., and Bondy, H. F., isoprene and caoutchouc. XVII. Fractionation of balata. XIX. Molecular size of caoutchouc and balata, A., 609.
- Staudinger, H., Brunner, M., and Feist, W., highly polymerised compounds. XLIV. Polyvinyl bromide, A., 1402.
- Staudinger, H., and Feist, W., highly polymerised compounds. XLV. *as*-Polydichloroethylene, A., 1402.
- Staudinger, H., and Fleitmann, T., highly polymerised compounds. XXXVIII. Poly-allyl chloride, A., 889.
- Staudinger, H., and Freudenberger, H., highly polymerised compounds. XLI. Determinations of mol. wt. of cellulose acetates, A., 1416.
- Staudinger, H., Frey, K., Signer, R., Starck, W., and Widmer, G., highly polymerised compounds. XXXIX. Cellulose, A., 1415.
- Staudinger, H., and Heuer, W., highly polymerised compounds. XXXIII. Relationships between viscosity and mol. wt. among polystyrenes, A., 333.
- Staudinger, H., and Leupold, E. O., isoprene and caoutchouc. XVIII. Determinations of viscosity of balata, A., 609.
- Staudinger, H., and Nodzn, R., highly polymerised compounds. XXXVI. Viscosity of solutions of paraffin, A., 571.
- Staudinger, H., Reichstein, T., and Internat. Nahrungs- & Genussmittel Akt.-Ges. (Inga), production of mercaptans of the furfuryl series, (P.), B., 361*.
- Staudinger, H., and Schweitzer, O., highly polymerised compounds. XI. Measurements of viscosity with polysaccharides and polysaccharide derivatives, A., 1414.
- Staudinger, H., Signer, R., Johnner, H., Lüthy, M., Kern, W., Russidis, D., and Schweitzer, O., highly polymerised compounds. XVIII. Constitution of polyoxymethylenes, A., 579.
- Staudinger, H., and Urech, E., highly polymerised compounds. XXXI. Polyacrylic acid and polyacrylic esters, A., 64.
- Staudt, E., heating bath for digestions in Kjeldahl's method of determining nitrogen, B., 322.
- Stauffer, J. C., Roberts, J. K., and Whitman, W. G., determination of vapour pressures of naphthas, B., 402.
- Stay, T. D., and Aluminum Co. of America, reclamation of scrap metals, (P.), B., 20.
- Steacie, E. W. R., kinetics of the heterogeneous thermal decomposition of methyl formate, A., 866. rate of coagulation of silver hydrosol, A., 1116. gas combustion pipette, A., 1151.
- Steacie, E. W. R., and Campbell, H. N., thermal decomposition of ethyl ether on the surface of platinum, A., 1133.
- Steacie, E. W. R., and Graham, G. B., solubility of water vapour in solid inorganic compounds at high temperatures, A., 1363.
- Steacie, E. W. R., and Maass, O., attempt to determine the osmotic pressures of very dilute solutions, A., 540.
- Steadman, L. T., γ -rays from radium and its products, A., 1339.
- Stearn, A. E., compound formation of crystal-violet with nucleic acid and gelatin and its significance in dye bacteriostasis, A., 645. nature of isoelectric gelatin in solution; evidence for the existence of the ampholyte ion. I. Ionic displacement reactions. II. Conductivity titrations of gelatin with crystal-violet, A., 857.
- Stearn, A. E., and Day, A. A., determination of oxidase activity; potato oxidase, A., 248.
- Stearn, A. E., and Stearn, E. W., mechanism of staining. II., A., 378. chemotherapeutic equilibria, A., 645.
- Stearn, E. W. See Stearn, A. E.
- Stearns, G., rapid preparation of faecal digests for use in nitrogen and mineral analyses, A., 1206.
- Stearns, G., and Lewis, H. B., metabolism of sulphur. XVII. Rate of oxidation of cystine in the rabbit, A., 637.
- Stearns, H. A., and Adams, R., stereochemistry of diphenyl compounds. VI. Preparation and resolution of 2:4:6:2':4'-penta-nitrodiphenyl-3-carboxylic acid, A., 911.
- Stearns, J. C., X-ray search for the origin of ferromagnetism, A., 272.
- Steatit-Magnesia Akt.-Ges., [leading-in] electric insulators [for gas-purification apparatus], (P.), B., 619.
- Stebutt, A., brown earths, B., 207.
- Stechow, N., and Wamoscher, L., isolation of the antineuritic vitamin, A., 1321.
- Steck, L. V., Slavin, M., and Ralston, O. C., system sodium sulphide-ferrous sulphide, A., 36.
- Steck, L. V. See also Pike, R. D.
- Steck, W. See Terres, E.
- Steel, G. E. See Bills, C. E.
- Steel, S. L. See Underhill, F. P.
- Steele, A. R., and Kipping, F. S., organic derivatives of silicon. XLI. Octa-*p*-tolylsilicotetrane, octa-*p*-tolylcyclotetrasilicotetrane, and other products from di-*p*-tolylsilicon dichloride, A., 100.
- Steele, B. D., and Mills, J. E., hydrides of boron, A., 437.
- Steely, D. G., and Blake, F. W., method and apparatus for continuous drying and roasting of cacao beans, etc., (P.), B., 792.
- Steen, A. B., and Texas Co., apparatus for treating [emulsified mineral] oil, (P.), B., 359.
- Steenbeck, M., mechanism of electron liberation at the cathode of a glow discharge, A., 513.
- Steenberg, E. M. See Linderström-Lang, K.
- Steenbergen, H. D., methods of preparation and control of mutually concordant standard solutions for technical analysis, A., 879.
- Steenbock, H., Black, A., and Thomas, B. H., cereals and rickets. III. Rachitic properties of maize, wheat, and oats; effect of irradiation and of mineral supplements, A., 381.
- Steenbock, H., Hart, E. B., Hanning, F., and Humphrey, G. C., fat-soluble vitamins. XXX. Effect of feeding with irradiated yeast on antirachitic value of cow's milk, A., 1322.
- Steenbock, H., Hart, E. B., Rising, B. M., Hoppert, C. A., Basherov, S., and Humphrey, G. C., fat-soluble vitamins. XXVIII. Effect of exposure of the cow to sunlight and to ultra-violet irradiation on antirachitic value of milk, A., 963.

- Steenbock, H., Hart, E. B., Riising, B. M., Kletzien, S. W. F., and Scott, H. T., fat-soluble vitamins. XXIX. Is antirachitic activity induced by ultra-violet irradiation a panacea for negative calcium balances? A., 963.
- Steenbock, H. See also Hart, E. B., Lindow, C. W., and Mac-Corquodale, D. W.
- Steenhauer, A. J. See Itallie, L. von.
- Steenstrup, C. See Brit. Thomson-Houston Co., Ltd.
- Steere, F. W., and Semet-Solvay Engineering Corporation, water-gas manufacture, (P.), B., 852.
- Steere, F. W. See also Semet-Solvay Eng. Corp.
- Steere, S. A. See Goodyear Tire & Rubber Co.
- Steese, M. C., [open-hearth] furnace, (P.), B., 489.
- Steffanutti, P., serum-lipase in histamine shock, A., 1214.
- Steffanutti, P. See also Deier, L.
- Steffen, C., jun., continuous washing of tricalcium saccharate, (P.), B., 635*.
- Steffen, W. See Menz, H.
- Steffenburg, S. See Euler, H. von.
- Stefke, H., production of firmly adherent electrolytic metal [lead] deposits upon articles placed in the molten bath, (P.), B., 722.
- Stegeman, G. See Munger, H. P.
- Stegemeyer, L. A. See Fischer, C., jun.
- Stehlík, B. See Šimek, A.
- Steib, H. See Enger, R.
- Steidle, H., toxicology of the higher fungi. I. *Lactarius torminosus*, A., 1067.
- Steiger, J. U., combustion of solid fuels and heat-balance of a boiler plant, B., 541.
- Steiger, O. See Sanger, R.
- Steiger, R. E., 1-methylnaphthalene. I., A., 593.
- Steiger, R. E., formylation of amino-acids, A., 752.
- Steiger, R. E. See also Levene, P. A.
- Steiger, W., manufacture of fuel containing alcohol, (P.), B., 93.
- Steigerwald, C. See Frankenburger, W., and I. G. Farbenind. A.-G.
- Steigmann, A., photochemical oxidation and reduction from an electronic point of view. II., A., 174.
- photochemical reduction of silver salts by pinachrome, A., 555.
- speck concentration or centripetal theory of light sensitivity, A., 1136.
- aldehyde reactions with irradiated ergosterol and a colloidal-chemical aldehyde test, A., 1431.
- silver iodide problem, B., 38.
- Herschel effect in a fogged pankine-film, B., 38.
- Stemmig, F., and Erste Böhmsche Knnstseidefabrik Akt.-Ges., manufacture of viscose, (P.), B., 899.
- Stein, B., apparatus for determining alcohol in liquids, (P.), B., 682.
- Stein, Berthold. See General Aniline Works, Inc., Grasselli Dye-stuff Corp., and Schmidt, R. B.
- Stein, C. P. See Goodeve, C. F.
- Stein, G. See Windaus, A.
- Stein, L. See Gump, W.
- Stein, M. See Abel, E.
- Stein, W. See Birckenbach, L.
- Stein, Wilhelm. See Müller, Erich.
- Stein, W. D. See Block, D. J.
- Steinbeck, H. J. See Vollhase, E.
- Steinberg, F. See Jenke, M.
- Steinberg, S., effect of the state of the cementite on the heat sensitivity, the tendency to core-hardening, and formation of hardness fractures in carbon steels, B., 950.
- Steinbrückner, A., [crushing or grinding] mill, (P.), B., 493*.
- Steinbrunn, G. See Freudenberg, K.
- Steindorff, A. See I. G. Farbenind. A.-G.
- Steiner, A. See McMaster, L.
- Steiner, O., analysis of a water containing arsenic, molybdenum, and bismuth, and the colorimetric determination of small amounts of molybdenum, A., 1541.
- Steiner, W., reactions between the atoms and molecules of nitrogen and hydrogen, A., 1378.
- Steiner, W. See also Bay, Z.
- Steiner, W. L. See Dains, F. B.
- Steinfatt. See Densch.
- Steinfeld, J. I., increasing the therapeutic action and lowering the toxicity of arsenic-containing organic therapeutic substances, (P.), B., 839.
- Steinhäuser, determination of phosphorus in aluminium, B., 1157.
- Steinhoff, G., determination of sulphurous acid in minced meat, B., 529.
- Steinhoff, G. See also Kroft, B.
- Steinhorst, W. See Auerbach, R.
- Steinitz, E., relation between blood-sugar and urinary sugar, A., 241.
- Steinitz, E. W., choice of liquid fuels, B., 400.
- Steinkamp, J. H., determination of sulphur in gas, B., 594.
- Steinkopf, W., and Jaeger, P., aromatic sulphonyl fluorides. II. A., 1566.
- Steinkopf, W., and Teichmann, H., compounds of iodoform, bromoform, and chloroform with quaternary and ternary salts, A., 1400.
- Steinle & Hartung Ges.m.b.H., indicating thermometer filled with two liquids, (P.), B., 308.
- Steinmetz, H. See Nothhoff, J.
- Steinruck, K. See Rheinische Kampfer-Fabr. G.m.b.H.
- Steins, G. J. M., and Steins, R. H. M., removing marks on wool, (P.), B., 899.
- Steins, R. H. M. See Steins, G. J. M.
- Steinschlager, M., temperature changes, heat flow, and heat capacity of coke-oven walls, B., 227.
- Steinschneider, M., and Stolz, E., theory of the sulphite cooking process, B., 52.
- Steinwachs, E., buszite, A., 315.
- Steinwehr, H. von, and Schulze, A., preparation of pure mercury, A., 1138.
- explosive antimony, A., 1258.
- Steirische Magnesit-Industrie Akt.-Ges., caustic magnesia from impure magnesite and rocks, (P.), B., 282.
- Stejskal, K., production of nutritive substances [for absorption through the skin], (P.), B., 1005*.
- Stelkens, W., gluing of leather, and adhesive materials therefor, (P.), B., 1081.
- Stelling, O., valency of sulphur in dithionates, A., 525.
- K-X-ray absorption spectra of chlorine in stereoisomeric organic compounds, A., 672.
- relationship between chemical constitution and K-X-ray spectra, A., 1334.
- Stelling, O., and Olsson, F., X-ray spectroscopic investigations of some solid chloro-salts. I., A., 671.
- Stempel, B. See Kassner, G.
- Stenber, S., psychosis and blood-lipins; quantitative changes of total cholesterol and total fatty acids in blood. I., A., 1059.
- Stenfors, F. I. E., heat interchangers, (P.), B., 690.
- Stengel, W. See Fuchs, W.
- Stenhouse, E. See Berkeley, (Earl of).
- Stenstrom, W., effect of X-irradiation on certain compounds, A., 717.
- Stent, H. B. See Subramaniam, V.
- Stenvik, K. See Metallges. Akt.-Ges.
- Stenvinkel, G., significance of some predissociation phenomena in band spectra, A., 831.
- determination of the abundance ratios of isotopes from band spectra, A., 1495.
- Stepanenko, M. A. See Kusnetzov, M. I.
- Stepanov, A., and Kusin, A., action of yeast enzyme on glyoxylic acid, A., 957.
- synthesis of a hydrocarbon chain by means of enzymes. II. Carbogilase, A., 1619.
- Stepanov, D. V. See Gurvich, M. N.
- Stepanov, P. N. See Tschitschibabin, A. E.
- Stepanov, N. I., isotherm of the solubility of a binary compound in a ternary system, A., 1521.
- shape of the isothermal solubility curve of a solid in a ternary system, A., 1521.
- theoretical m.p. curves of a binary compound both undissociated and dissociated in the liquid phase, A., 1521.
- theoretical shape of the solubility isotherm of a solid in a complex solvent, A., 1521.
- distortion of the curve of the thermodynamic potential with the change of components in a binary system, A., 1521.
- Stephan, E. See Ruff, O.
- Stephan, J., rôle of enzyme action in seed germination, A., 258.
- Stephan, K. See Schering-Kahlbaum A.-G.
- Stephan, M. J., conversion of "oil tar" from low-temperature carbonisation of coal into light oils, B., 173.
- Stephan, R., action of compounds of insulin with bile acids on subcutaneous administration, A., 1069.
- Stephen, R. J. See Robertson, A.
- Stephens, E., Hall effect, electrical conductivity, and thermoelectric power of the lead-antimony series of alloys, A., 681.

- Stephens, F. A. See Quensel, L. S.
- Stephens, F. G. C., Anderson, L. J., Cash, W. A., and National Metal & Chemical Bank, Ltd., manufacture of titanium-containing compounds, (P.), B., 384*.
- Stephens, H. N., inorganic stopcock lubricant, A., 447.
- Stephens, J. G., X- and γ -radiation measurement and the new international r unit, A., 634.
- Stephenson, C. W., motion of flames in closed vessels, A., 1377.
- Stephenson, H. P. See Imperial Chem. Industries, Ltd.
- Stephenson, J. E., and Bridge, S. W., action of air on flowers of sulphur and ground sulphur, A., 178.
- Stepp, W., and Sauer, J., residual carbon of human blood. I. Microdetermination; values in diabetes, A., 807.
- residual carbon of human blood. II. Effect of insulin on the residual carbon in diabetes, A., 948.
- Steppuhn, O., and Smirnova, A., influence of the thyroid on the protein metabolism of individual organs, A., 1319.
- Steppuhn, O., and Utkina-Ljubovzova, X., [action of] proteolytic enzymes on [the protein of] Egyptian mummies (about 3000 years old) and mammoths (30,000—100,000 years old), A., 1608.
- Steppuhn, O. See also Timofeeva, A., and Utkina-Ljubovzova, X.
- Šterba-Böhm, J., and Pšafiček, A., compounds of cerium, A., 1007.
- Sterges, A. J. See Fraps, G. S.
- Sterilex, Ltd., and Sherman, A. E., freezing of fish [by means of cooled brine spray], (P.), B., 585.
- Sterkers, E., preparation of pure cerussite from zinc-lead ores, purification of zinciferous materials containing lead sulphate, and conversion of the latter into chrome-yellow, (P.), B., 199.
- Sterling, (Miss) V., and Laird, E. R., Raman effect in solutions of sodium nitrate of varying concentration, A., 1237.
- Stern, A., interaction of ammonium carbonate with alcoholic potassium chloride solution, B., 658.
- Stern, E., manufacture of a casein adhesive, (P.), B., 71.
- Stern, F. See Bergmann, M.
- Stern, H. J., fastness [of colours] to light, B., 957.
- Stern, K. See Willheim, R.
- Stern, K. G. See Kleinmann, H.
- Stern, O. See Estermann, T., and Knauer, F.
- Stern, T. E., emission of electrons from metals covered by thin films in intense electric fields, A., 6.
- conduction of electricity in metals, and allied phenomena, A., 531.
- Sternbach, L. See Dzewoński, K.
- Sternier-Rainer, R., remelted aluminium and aluminium alloys and their uses, B., 1072.
- Sterzl, E., apparatus for disintegrating, grinding, reducing to fibres, mixing, or felting humid or dry materials, (P.), B., 270*.
- Stessel, T. A. See Andreev, N. N.
- Stettbacher, A., explosive compositions, (P.), B., 742.
- universal explosive, B., 930.
- Stettiner Chamotte-Fabrik Akt.-Ges. vorm. Didier, production of mixed gas from coal gas and other gases, (P.), B., 405.
- Steudel, H., deaminocaseinogen. II., A., 638.
- yeast-nucleic acid. VI., A., 958.
- Steudel, H. See also Massatsch, C.
- Steven, A., influence of nitrogenous manures on the protein content of malting barley, B., 208.
- Steven, O. L., leather-dressing process, (P.), B., 999.
- Stevens, D. M. See Dewey & Almy Chem. Co.
- Stevens, E. W., separation of metallic values [precious metals from ores], (P.), B., 915.
- Stevens, J. R. See Morton, A. A.
- Stevens, K. R. See Waksman, S. A.
- Stevens, M. A. See Krause, A. C.
- Stevens, P. G. See Levene, P. A.
- Stevens, R. E. See Hamm, H. A.
- Stevens, R. H., Norris, G. C., Watson, W. N., and Rhodesia Broken Hill Development Co., Ltd., purification of zinc solutions, (P.), B., 1110*.
- Stevens, T. S., degradation of quaternary ammonium salts. II., A., 1437.
- Stevens, T. S., Snedden, W. W., Stiller, F. T., and Thomson, T., degradation of quaternary ammonia salts. III., A., 1585.
- Stevenson, A. F., intensity of quadrupole radiation in the alkali metals and the occurrence of forbidden lines, A., 1075.
- Stevenson, F. A., and Economy Metal Products Corporation, cupola furnaces, (P.), B., 425.
- Stevenson, H. A., and Smiles, S., β -naphthalen-1-thioquinone and dehydro-2-naphthol 1-disulphide, A., 1285.
- Stevenson, M. See Devoto, G.
- Stewardson, D. M., copper as applied to brewing, B., 926.
- Stewardson, E. A., continuous-reading aneroid manometer for moderately low pressures, A., 1153.
- Stewart, A., preparation for waterproofing cement used in buildings, (P.), B., 1030.
- Stewart, A. See also Imperial Chem. Industries, Ltd.
- Stewart, A. D. See Shepherd, E. S.
- Stewart, A. W. See Russell, Alfred.
- Stewart, C. P., and White, A. C., determination of soap in blood, A., 236.
- Stewart, D. M. See Nanji, D. R.
- Stewart, E. G., functions of coke ovens, B., 748.
- Stewart, F. B. See Lavin, G. I.
- Stewart, G. W., cybotactic (molecular group) condition in liquids; nature of the association of octyl alcohol molecules, A., 668.
- determination of purity of liquid isomerides by X-ray diffraction, A., 672.
- Stewart, J., nitrogen metabolism in sheep on high-protein diets, A., 369.
- Stewart, J. M. See Okey, R.
- Stewart, J. Q., and Korff, S. A., distinction between scattering and absorption, A., 653.
- Stewart, J. Q. See also Korff, S. A.
- Stewart, R. F., application of continuous methods of operation to causticising by the lime-soda method, B., 658.
- Stewart, R. F., Venn, R. J., and Dorr Co., Ltd., recovery of β -naphthol and other difficultly filterable organic compounds, (P.), B., 452.
- Stewart, R. W. See Herty, C. H., jun.
- Stewart, T. D., and Smith, Donald M., induced addition of ethylene and chlorine, A., 1129.
- Stheeman, A., chemical properties of blood-pigments and related substances, A., 1054.
- Stiasny, E. G., determination of insoluble matter in tannin extracts, B., 159.
- manufacture of tawed leather, (P.), B., 960.
- Stiasny, E. G., and Jalowzer, B. J., tanning of hides and skins, (P.), B., 434*.
- Stiasny, E. G., Olschansky, E., and Weidmann, S., chrome tanning. IX. Effect of rendering chrome-tanning liquors basic with sodium carbonate, B., 158.
- Stich, C., colorimetric detection of acetone in urine, A., 364.
- testing of ampoule glass for alkalinity, A., 968.
- Stich, E. G., economics of alcohol and yeast factories, B., 480.
- Stickland, L. H., bacterial decomposition of formic acid, A., 251.
- Stickland, O. W. See Imperial Chem. Industries, Ltd.
- Stickstoff-Werke Akt.-Ges. Ruße, and Ehrlich, V., fertiliser, (P.), B., 342.
- Stickstoff-Werke Akt.-Ges. Ruße, Ehrlich, V., and Doboczky, A., preparation of carbamide, (P.), B., 233.
- Stickstoffwerke Ges.m.b.H., galvanic batteries [with electrolyte reservoir], (P.), B., 955.
- Stickstoffwerke Ges.m.b.H., and Hene, E., manufacture of sodium fluoride or bifluoride, (P.), B., 283.
- Stickstoffwerke Ges.m.b.H. See also Caro, N.
- Stiebel, F. See Zocher, H.
- Stieber, C. See Pacsn, E.
- Stieger, G. See Schumacher, H. J.
- Stiegler, A. See Dondain, A.
- Stiegler, H. W. See Lewis, W. L.
- Stieltjes, A., treatment of the fruits of the oil palm, B., 620.
- Ster, G. See Schroeter, G.
- Stierstadt, O., alteration in the electrical conductivity of ferromagnetic substances in longitudinal magnetic fields, A., 984.
- Stievenart, A., apparatus for separating dust from gases, (P.), B., 494*.
- Stigell, R. V., pressure filtration in analysis, A., 885.
- Stigol, M. See Klein, A.
- Stiles, H. R., Peterson, W. K., and Fred, E. B., acids produced in fermentation of maize by *Clostridium acetobutylicum*, A., 114.
- Still, C., extracting benzene hydrocarbons from distillation gases, (P.), B., 92.
- purification of gases containing hydrogen sulphide, (P.), B., 498.
- increasing the heat exchange between gases and solids or molten materials, (P.), B., 644.
- recovery of neutral ammonium sulphate from the mixture of crystals and liquor obtained in an ammonia sulphate saturator, (P.), B., 711.
- Still, C. See also Kuhn, Arthur.

- Still, *E. U.*, physiology of secretin. 1. Preparation and isolation, A., 821.
- Still, *E. T.* See Stevens, *T. S.*
- Still, *M.*, precipitation of calcium as oxalate, A., 1147.
- Stillman, *J. W.*, and Bartleson, *T. L.*, titration table, A., 569.
- Stillwell, *A. G.*, treatment of waste material [from sugar refineries], (P.), B., 343.
- Stillwell, *C. W.*, and Clark, *G. L.*, X-ray examination of commercial galvanised iron by a modified reflection method, B., 910.
- Stimson, *E. E.* See Brit. Celanese, Ltd.
- Stimson, *E. F.*, grinding mills, (P.), B., 970.
- Stimson, *R. W.*, treatment of ores, etc., containing acid oxide-forming metals, *e.g.*, chromium, manganese, molybdenum, titanium, uranium, for the formation of salts thereof and useful by-products, (P.), B., 19.
- Stimson, *R. W.* See also Borchers, *W.*
- Stinchfield, *R. L.* See Kodak, Ltd.
- Stirrup, *V. J.* See Shutt, *W. J.*
- Stiven, *D.*, lactic acid formation in muscle extracts. V. Comparison between soluble starch and glycogen in respect of lactic acid formation and phosphoric ester accumulation. VI. Influence of irradiation on lactic acid formation and phosphoric ester accumulation from glycogen, A., 372.
- Stobie, *V.*, electric [induction melting] furnace, (P.), B., 21.
- Stock, *A.*, and Ramser, *H.*, epidiascope for lecture experiments, A., 187.
- Stock, *A.*, Wiberg, *E.*, and Martini, *H.*, preparation of boron hydride. XIII, A., 720.
- Stock, *A.*, and Zimmermann, *W.*, absorption by animals of mercury from contaminated air, A., 371.
- Stock, *E.*, vapour pressure of mercury at low temperatures, A., 534.
- Stock, *E.*, resins. III, IV., and VII, B., 204, 249, 1119.
- Stock, *E.*, detection of benzene in mixtures, B., 274.
- Stock, *E.*, resins. V. Adulteration of sandarac, B., 623.
- Stock, *E.*, resins. VI. Gutta-percha resins, B., 779.
- Stock, *E.*, detection of adulteration of "abrazinöl" (wood oil from Indo-China) with castor and arachis oils, B., 1162.
- Stock, *J.* See Gen. Aniline Works, Inc.
- Stockbarger, *D. C.*, and Burns, *L.*, filter radiometry, A., 5.
- Stockbarger, *D. C.*, and Johnson, *L. B.*, comparison between artificial and natural solarisation and stabilisation of special commercial ultra-violet-transmitting glasses, B., 1110.
- Stockdale, *D.*, composition of eutectics, A., 537.
- Stockdale, *D.*, constitution of the cadmium-zinc alloys, A., 1359.
- Stockdale, *J.* See Evans, *U. R.*
- Stockdale, *S.* See Wellman Smith Owen Eng. Corp.
- Stocker, *R.* See Soc. of Chem. Ind. in Basle.
- Stockhardt, *J. S.* See Baker, *T.*
- Stockhausen, *F.*, and Rothenbach, *E. F.*, determination of the hydrogen-ion concentration of beer and wort, B., 1128.
- Stockholms Benmjölsfabriks Aktiebolaget, dividing substances in the liquid state into drops, (P.), B., 538.
- Stockholms Superfosfat Fabriks Aktiebolaget, production of fertilisers, (P.), B., 435.
- Stockmar, *H. A.*, manufacture of porous brick, etc., (P.), B., 375.
- Stoddard, *J. L.*, and Drury, *P. E.*, determination of blood-fat, A., 103.
- Stoddart, *J.*, insecticides and fungicides, (P.), B., 924.
- Stoddart, *J. H.* See Ellis, *D.*
- Stoecker, *J.*, apparatus for intercepting furnace dust in blast furnaces, (P.), B., 773.
- Stöhr, *R.* See Haam, *E.*
- Stoenescu, *V.* See Danaila, *N.*
- Stermer, *C.*, spectrum of the sunlit auroral rays, A., 390.
- Störmer, *R.* See Holm, *R.*
- Stötter, *H.* See I. G. Farbenind. A.-G.
- Stoewener, *F.* See I. G. Farbenind. A.-G.
- Stoffels, *J.* See Maschinenfabr. Esslingen.
- Stohlman, *E. F.* See Smith, *M. I.*
- Stok, *C. J. E.*, maceration of filter-cake in defecation factories, B., 476.
- Stoker Matic Corporation. See Rieger, *W. F.*
- Stokes, *J. S.* See Novotny, *E. E.*
- Stokes, *R. A.* See E. M. S. Industrial Processes, Ltd.
- Stoklasa, *J.*, biochemical reactions in the formation of humus by micro-organisms in the soil, B., 577.
- Stoklasa, *J.*, Cakir, *J.*, and Pěnkava, *J.*, assimilation of carbon dioxide under the influence of radioactivity in the development of cells containing chlorophyll, A., 1322.
- Stoklasa, *J.*, Hruban, *J.*, and Pěnkava, *J.*, physiological action of α -, β -, and γ -rays of radium on the dynamics of carbon dioxide assimilation, A., 648.
- Stoland, *O. O.* See Essau, *J. N.*
- Stoll, *B. I.*, and Stoll Oil Refining Co., gasoline filtering system and apparatus, (P.), B., 894.
- Stoll, *M.*, and Scherrer, *W.*, oxidation of cyclopolymethylene ketones with hydrogen peroxide and ozone, A., 602.
- Stoll, *M.* See also Ruzicka, *L.*
- Stoll Oil Refining Co. See Stoll, *B. I.*
- Stollé, *R.*, derivatives of pyrazoline, A., 930.
- Stollé, *R.*, constitution of disodium cyanamide, A., 1027.
- Stollé, *R.* [with Bergdoll, *R.*, Luther, *M.*, Auerhahn, *A.*, and Wacker, *W.*], N-substituted oxindoles and isatins, A., 1593.
- Stollé, *R.*, and Hanusch, *F.*, anhydro-[1'-hydrazino-1'-cyclohexyl]-1-cyclohexan-2-one], A., 1427.
- Stollé, *R.*, and Henke-Stark, *F.*, tetrazole derivatives, A., 619.
- Stollé, *R.*, and Perrey, *H.*, action of diazo-compounds on tetrazolyl disulphides, A., 620.
- Stollé, *R.*, Pollecoff, *F.*, and Henke-Stark, *F.*, derivatives of dihydrotetrazole, A., 792.
- Stollenwerk, *W.*, water solubility of the phosphoric acid of mono-calcium phosphate, B., 710.
- Stollenwerk, *W.* See also Hager, *G.*
- Stolley Corporation, *R. R.*, cleaning of liquid solvents, (P.), B., 1059.
- Stolley Corporation, *R. R.*, apparatus for cleaning liquid solvents used for dry-cleaning and other purposes, (P.), B., 1063*.
- Stolpp, *T.* See Schönberg, *A.*
- Stoltzenberg, *H.* See Danneel, *H.*
- Stolz, *E.* See Steinschneider, *M.*
- Stone, *E. G.*, rotary kilns, (P.), B., 949.
- Stone, *J. F.* See Kohler, *E. P.*
- Stone, *S. B.*, origin of the chemical elements, A., 660.
- Stone, *S. B.*, kinetic energy correction in fluid flow, B., 844.
- Stone, *W.*, contact of solids, A., 686.
- Stone & Co., Ltd., *J.*, Lambert, *W.*, and Wild, *R. W.*, electrolytic deposition of metal on metal tubes, (P.), B., 776.
- Stone & Co., Ltd., *J.*, and Rowledge, *E. G.*, refrigerator plant, (P.), B., 1051.
- Stoner, *E. C.*, thermoelectric properties of ferromagnetics, A., 985.
- Stoner, *E. C.*, magnetic and magneto-thermal properties of ferromagnetics, A., 1101.
- Stoner, *E. C.*, free electrons and ferromagnetism, A., 1505.
- Stoner, *E. C.*, interchange interaction theory of ferromagnetism, A., 1505.
- Stoodley, *L. G.* See Carpenter, *L. G.*
- Stoops, *W. N.* See Smyth, *C. P.*
- Stoppel, *F.* See Tillmans, *J.*
- Storch, *H. H.*, extraction of potash from polyhalite, B., 1026.
- Storch, *H. H.*, and Roessler & Hasslacher Chemical Co., synthesis of methyl alcohol and catalyst therefor, (P.), B., 939.
- Storch, *H. H.* See also Lacy, *B. S.*, and Starrs, *B. A.*
- Storer, *G. E.*, and Nat. Processes, Ltd., apparatus for roasting or sintering of ores, etc., (P.), B., 1116*.
- Storey, *O. W.*, unusual corrosion of aluminium by alkali, B., 1032.
- Storey, *O. W.*, Kliefoth, *M.*, and Burgess Laboratories, Inc., *C. F.*, water-resistant composition of matter [for use in building], (P.), B., 420.
- Storey, *R. A.* See Read, *J.*
- Stormont, *M. F.*, Lampe, *I.*, and Barlow, *O. W.*, comparison of the premedication values of barbituric acid derivatives in their relation to nitrous oxide anaesthesia, A., 1062.
- Story, *LeR. G.*, Provine, *R. W.*, and Bennett, *H. T.*, chemistry of gum formation by cracked gasoline, B., 45.
- Stott, *O.*, and Matthews & Yates, Ltd., means for extracting dust, grit, and similar solid matter from gases, (P.), B., 799.
- Stott, *O.* See also Matthews & Yates, Ltd.
- Stoughton, *B.*, and Greiner, *E. S.*, iron-silicon equilibrium diagram, A., 988.
- Stout, *L. E.*, Burch, *O. G.*, and Langsdorf, *A. S.*, electrodeposition of copper-nickel alloys, B., 668.
- Stover, *N. M.* See Sandin, *R. B.*
- Strachan, *J.*, adsorption on the crystal lattice of cellulose, A., 684.
- Strachan, *J.*, production and treatment of cellulose in the paper industry, B., 97.
- Strachan, *J.*, action of liquids on paper, B., 97, 553.
- Strachan, *J.*, [examination of china clay for grit], B., 768.
- Strachovsky, *N.* See Auer, *L.*
- Strada, *M.* See Natta, *G.*
- Strafford, *N.* See Brit. Dyestuffs Corp., Ltd.
- Strain, *H. H.*, ammonolysis of ketones, A., 474.



- Strain, H. H., ammono-furfuraldehydes, A., 783.
metallic salts of ketones, A., 1273.
blast lamp for natural gas, B., 400.
- Strain, H. H. See also Spoehr, H. A.
- Strand, A. L., measuring the toxicity of insect fumigants, B., 396.
- Stranski, E., influence of mineral material on sugar metabolism, A., 953.
- Stranski, I. N., relation between "active centres" and the "attracting places" (Lockerstellen) of crystals, A., 279.
- Stranski, I. N., and Mutaftschiew, Z. C., crystallisation of sodium bromide from supersaturated solutions, A., 1362.
- Strasburger, J. See Broniewski, W.
- Strassen, H. zur, equilibria between iron, nickel, and their silicates in fused masses, A., 1375.
- Strasser, E., sulphates of aromatic amines as primary standards in alkalimetry, A., 1541.
- Strasser, F. See also Weissberger, A.
- Strasser, J. P., waterproof [asphaltum] cement, (P.), B., 230.
- Stratford, C. W., treating hydrocarbon distillates and apparatus therefor, (P.), B., 48.
heating of fluids, (P.), B., 889.
- Stratford, C. W., and James, W. S., apparatus for refining oil, (P.), B., 407.
- Stratford, R., action of aluminium chloride on hexahydroaromatic and saturated aliphatic hydrocarbons, B., 228.
- Stratford, W. M., and Texas Co., treating and purifying hydrocarbon lubricating oils, (P.), B., 650.
- Stratmann, H. See Stratmann & Werner.
- Stratmann & Werner, production of cooling brine, (P.), B., 508.
refrigerant with low f. p., (P.), B., 590.
rendering victuals radioactive, (P.), B., 684.
- Stratton, J. F. O., [boiler] furnaces, (P.), B., 590.
- Straub, F. See Soc. of Chem. Ind. in Basle.
- Straub, H., length of coherence of light emitted from canal rays, A., 1083.
- Straub, J., preparation of organic peroxides, (P.), B., 409.
- Straub, J., and Malotaux, R. N. M. A., solidification curves of cacao butter, B., 109.
- Straub, W. See Wieland, H.
- Strauch, C. M. See Morgan, A. F.
- Strauchen, D. M., and Ritter Dental Manufacturing Co., Inc., treatment of leather and production of leather articles, (P.), B., 252.
- Straumanis, M., electrochemical behaviour and rate of solution of single zinc crystals in sulphuric acid, A., 705.
theory of solution of metals, A., 1125.
- Straumanis, M. [with Drujans, M.], retardation of solution of zinc [in acid] by alloying with cadmium, A., 988.
- Straus, F., Heyn, W., and Schwemer, E., propiolic acid, A., 892.
- Straus, F., Kollek, L., and Hauptmann, H., replacement of positive hydrogen by halogen. II. Dihalogenodiacetylenes, A., 1158.
- Straus, F., Kollek, L., and Heyn, W., replacement of positive hydrogen by halogen. I., A., 1157.
- Strauss, B., Schottky, H., and Hinnäber, J., separation of carbide from rustless non-magnetic chrome-nickel steel on heating, B., 660.
- Strauss, B. See also Krupp, A.-G., F.
- Strauss, K. See Goldschmidt, S.
- Strebing, R., and Holzer, H., use of micro-analysis in the streak test [for precious metal alloys], B., 867.
- Strebing, R., and Zombory, L. von, volumetric determination of barium and sulphates, A., 53.
- Street, J. N. See Morris, V. N.
- Street, W. A., refining of hydrocarbon oils, (P.), B., 499.
- Streeter, L. R., and Harman, W., spray residues [on fruit], B., 638.
- Streeter, L. R., and Rankin, W. H., fineness of ground sulphur sold for dusting and spraying, B., 785.
- Strehlenert, R. W., manufacture of fuel, (P.), B., 498.
- Streight, H. R. L. See Clark, R. H.
- Streitwolf, K. See Kollé, W.
- Stremme, H., sulphate-sulphur in certain types of soils, B., 576.
- Strenk, K., sulphur fluoride, S_2F_6 , A., 1538.
- Stevens, J. L., extraction of oil from solid fuels, shales, torbanites, etc., (P.), B., 312.
- Strickhouser, S. I. See Naugatuck Chem. Co.
- Stricks, W. See Paweck, H.
- Strieter, O. G., accelerated tests of asphalts, B., 1137.
- Strileciuc, D., a typical corrosion of the starch of American winter barley attacked by *Fusarium roseum* and *Gibberella saubinetii*, B., 787.
- Strindberg, R., filter mat, (P.), B., 1009.
- Stringfellow, W. A. See Willey, E. J. B.
- Stroebel, R. See Brass, K.
- Strömberg, R., adsorption measurements with an improved micro-balance, A., 151.
- Strohal, D., qualitative analysis of cations without the use of hydrogen sulphide, A., 443.
- Strohhäcker, L., determination of adsorbed gas layer on a metallic surface by a weighing method, A., 1364.
- Strokov, F. N., preparation of barium chloride from wastes in the production of lithopone, B., 141.
conversion of barium sulphide into barium chloride by the action of chlorine, B., 141.
conversion of technical barium sulphide into barium chloride and sulphur or sulphur chloride, B., 322.
- Strong, H. W. See Imperial Chem. Industries, Ltd.
- Strong, R. A., low-temperature carbonisation: continuation of tests on Canadian bituminous coals, B., 88.
- Strong, R. A. See also Gilmore, R. E.
- Strong, W. M., and General Drying Engineering Corporation, drying apparatus, (P.), B., 690.
- Stroud, W. F., jun., Chillas, R. B., jun., and Atlantic Refining Co., fractional distillation, (P.), B., 971.
- Struck, H. C. See Shriner, R. L.
- Strumia, M. See McCutcheon, M.
- Struve, O., identification of Al III and of Al II in stellar spectra, A., 653.
phosphorus in stellar spectra, A., 1075.
- Struve, O., and Elvey, C. T., stellar absorption lines, A., 390.
- Struve, O., and Higgs, C. D., stellar calcium lines in spectral types A and B, A., 266.
- Struwe, F. See Meyer, R. J.
- Stryker, G. W., manufacture of phenol-formaldehyde condensation product, (P.), B., 572.
- Stscherbakov, J., and Libina, D., electrolytic preparation of hydroxylamine. II. Combination of [anodic] oxidation with [cathodic] reduction, A., 44.
- Stuart, E. H., and Lilly & Co., E., ephedrine-aldehyde and -ketone compounds and solutions, and their preparation, (P.), B., 839.
- Stuart, H. A., Kerr effect in gases and vapours. I. Method and results for sulphur dioxide, methyl chloride, methyl bromide, ethyl chloride, and dimethyl ether, A., 142.
variation of electric moment in homologous series, A., 398.
temperature dependence of Kerr constants for gases and the results for methyl and ethyl alcohol, A., 1352.
- Stuart, H. A. See also Wolf, K. L.
- Stuart, J. F. W. See Holt, T. W.
- Stuart, J. M., and Wormwell, F., routine preparation of conductivity water. II., A., 434.
- Stuart, J. M. See also Bengough, G. D.
- Stubbs, J. H. See Stubbs, Ltd., J.
- Stubbs, J. R. See Elsdon, G. D.
- Stubbs, Ltd., J., and Stubbs, J. H., apparatus for the gassing of textile yarns or threads, (P.), B., 610.
- Stuber, B., blood coagulation as a colloid-chemical problem, A., 802.
- Stuber, B., and Lang, K., blood-coagulation. XXIII. Cause of inability to coagulate in peptone shock, A., 1202.
pathogenesis of thrombosis, A., 1612.
influence of "germanin" on the blood-coagulation system: its application in thrombosis, A., 1612.
influence of intravenous sugar injection on the blood-coagulation system with special reference to the pathogenesis of thrombosis, A., 1612.
- Stuber, E., and Kljatschkina, B., determination of morphine in opium, B., 531.
- Studebaker Corporation. See Fries, E. C.
- Studien-Gesellschaft für Wirtschaft & Industrie m.b.H., oxalate bath for electrolytic tinning, (P.), B., 245.
preparation of an aluminium magnesium silicate (artificial mica), (P.), B., 283.
- Stueckelberg, E. C. G., and Morse, P. M., effective cross-section for the recombination of electrons with hydrogen ions, A., 1232.
- Stueckelberg, E. C. G., and Smyth, H. D., ionisation of nitrous oxide and nitrogen dioxide by electron impact, A., 1346.
- Stueckelberg, E. C. G. See also Smyth, H. D.
- Stürmer, K., tanning animal hides with iron salts, (P.), B., 1165.
- Stuhlmann, H. See Hock, H.
- Stumper, R., barium aluminate and its use in water purification, B., 219.

- Sturbelle, L., production of zinc and other metals, (P.), B., 1115.
- Sturges, W. S., Parsons, L. B., and Drake, E. T., metabolism of anaerobes. IV. Nature of the volatile acids produced by *Cl. histolyticum* from proteins, A., 376.
- Sturm, thyroid gland and distribution of iodine in the human and animal organism, A., 803.
- Sturm, F., peptidase, A., 815.
- Sturm, H. See Bosshard, E.
- Sturm, K. See Wessely, F.
- Sturrock, M. G. See Hatcher, W. H.
- Stursa, F. See Vesely, V.
- Sturtevant Co., B. F., and Derry, G. C., heat-exchange apparatus, (P.), B., 1134.
- Sturtevant Co., B. F., and Hagen, H. F., drying kilns [for lumber, etc.], (P.), B., 949.
- Sturtevant, T. J., and Sturtevant Mill Co., air separator [for solids], (P.), B., 40.
- air separator, (P.), B., 695.
- Sturtevant Mill Co. See Sturtevant, T. J.
- Stutz, G. A. F., scattering of light by dielectrics of small particle size, A., 1092.
- Styer, C. A. See Associated Electrical Industries, Ltd., and Westinghouse Electric & Manuf. Co.
- Style, D. W. G. See Allmand, A. J., and Gray, L. T. M.
- Suau, E. See Delépine, M.
- Subal, H. See Haakh, H.
- Subbarow, Y. See Fiske, C. H.
- Subero, G. See Del Campo, A.
- Subero, S. E. G., Gibbs-Helmholtz equation, A., 1523.
- Subramanian, V., biochemistry of waterlogged soils. III. Decomposition of carbohydrates with special reference to formation of organic acids, B., 27.
- determination of soluble carbohydrates, lactic acid, and volatile fatty acids in soils and biological media, B., 28.
- Subramanian, V., Stent, H. B., and Walker, T. K., mechanism of the degradation of fatty acids by mould fungi. IV., A., 66.
- Subramanian, V. See also Pillai, T. R. N., Rao, M. G., and Sndaram, P. S.
- Sucharda, E. See Bobranski, B.
- Sucheni, L. See Dziewoński, K.
- Suchier, A., test-paper for detection of small amounts of carbonyl chloride, A., 181.
- analysis of crude phosphates, B., 555.
- modification of the citrate method [for the determination of soluble phosphate in superphosphate], B., 877.
- Suchodolski, J., detection of ethyl o-phthalate, B., 753.
- Suchodolski, V. A. See Evnevitch, E. V.
- Suchy, R. See I. G. Farbenind. A.-G.
- Sucksmith, W., gyromagnetic effect for paramagnetic substances. I. Description of method and results for dysprosium oxide, A., 1100.
- Sucui, G. See Spacu, G.
- Sudzuki, H. See Goto, K.
- Süs, O. See Fischer, Hans.
- Sueyoshi, Y., and Aoki, K., effect of lipins, particularly of phospholipin, on the action of enzymes, A., 499.
- Suga, T. See Takamine, T.
- Sugasawa, S. See Lovecy, A.
- Sugata, H., hypervitaminosis. I. Metabolism of the hypervitaminised rabbit, A., 255.
- Sugden, J. A., and Cobb, J. W., changes in thermal expansion characteristics during the burning of a silica brick, B., 989.
- Sugden, S., parachor and molecular volume, A., 842.
- Sugden, S. See also Burstall, F. H.
- Sugden, T., [boiler-steam] dryers, (P.), B., 1098.
- Suge, Y., liquid air cryostat for temperatures below the triple point of oxygen, A., 56.
- Sugihara, N., *Panax ginseng*, A., 1617.
- Sugihara, N., and Min, P., *Panax ginseng*. II. Starvation and the toxicity of drugs in rats fed on *Panax ginseng*. III. and IV. Toxicity of convulsive and paralytic poisons in rats fed on *Panax ginseng*, A., 1617.
- Sugino, K. See Komatsu, S.
- Sugino, R., effect of addition of proteins on the surface tension of a solution containing surface-active acid or base, A., 287.
- Sugita, T., influence of pyruvic acid and acetaldehyde on the iodic acid value of the blood-serum of hungry animals, A., 244.
- Sugiura, Y., angular intensity distribution of continuous X-ray spectrum. I. and II., A., 4, 655.
- Suhr, C. L., Zehrung, W. S., and Pennzoil Co., removal of cloud-forming materials from hydrocarbon oil, (P.), B., 313.
- Suhr, J., almasilium, B., 424.
- Suhrmann, R., relations between the normal photo-electric effect and electrical surface properties of different metals, A., 128.
- absorption spectra of blood and blood constituents, A., 132.
- Suhrmann, R., and Breyer, F., lecture experiment to demonstrate the influence of a monatomic film of sodium on the glowing electron emission of a tungsten wire, A., 1336.
- Suida, H., working-up pitches and asphalts, (P.), B., 178.
- production of concentrated acetic acid, (P.), B., 275, 361.
- Suida, H., Sadler, H., and Noss, F., decomposition of [rye and] maize straw with nitric acid, B., 654.
- Suk, J., Neubauer values of some [Czechoslovakian] soils, B., 475.
- Sukhanov, N. See Kiselev, V.
- Sula, J., preparation of some blood-pigment derivatives, A., 942.
- Sulfrlan, A., small gas muffle furnace, A., 446.
- Sullivan, B., and Howe, M., minerals of wheat. I. Sulphur and chlorine, B., 31.
- Sullivan, F. W., jun., and Standard Oil Co., manufacture of high m. p. wax, (P.), B., 274.
- Sullivan, J. D., chemistry of leaching chalcocite, B., 1064.
- Sullivan, J. D., and Sweet, A. J., factors governing removal of soluble copper from leached ores, B., 911.
- Sullivan, J. D. See also Guggenheim, M.
- Sullivan, M. X., biochemistry of sulphur. II. Distinctive reaction for cysteine and cystine, A., 199.
- biochemistry of sulphur. V. Cystine content of phaseolin, A., 488.
- biochemistry of sulphur. IV. Colorimetric determination of cystine in casein by means of the β -naphthoquinone reaction, A., 1604.
- Sullivan, M. X., and Hess, W. C., biochemistry of sulphur. III. Groups involved in the naphthaquinone reaction for cysteine and cystine, A., 199.
- biochemistry of sulphur. VII. Cystine content of purified proteins, A., 1604.
- Sullivan, M. X., and Jones, D. B., biochemistry of sulphur. V. Cystine content of conphaseolin and phaseolin, the α - and β -globulins of the navy bean, A., 1604.
- Sullivan, R. C. See MacLean, A. B.
- Sulman, H. L., concentration of ores by flotation, B., 423.
- Sulzer Frères Société Anonyme, installations for dry-cooling of hot coke, (P.), B., 600.
- Sumiki, Y., fermentation products of moulds. IV. *Aspergillus glaucus*. I., A., 1477.
- saponin of soya bean, A., 1483.
- Suminokura, K., laccase of Japanese lacquer, A., 1474.
- Summ, B. R. See Titajev, A. A.
- Summerhays, W. E., coefficient of diffusion of water vapour, A., 679.
- Summers, S. L., methylenedisalicylic acid derivatives, (P.), B., 966.
- Summers & Sons, Ltd., J., and Freeman, H. B., galvanising bath, (P.), B., 515.
- Sumner, J. B., purification of urease by crystallisation and the elementary composition of the crystals, A., 642.
- Sumner, J. B., and Myrbäck, K., inactivation of highly-purified urease by heavy metals, A., 1217.
- Sun Oil Co. See Pew, A. E., jun., Pew, J. H., and Thomas, H.
- Sun-Maid Raisin Growers of California. See Dale, J. K., and Denny, H. W.
- Sunaga, S., apparatus for making single-crystal wire, A., 566.
- Sundaram, P. S., Norris, R. F., and Subramanian, V., proteins of Indian foodstuffs. II. Proteins of the pigeon pea (*Cajanus indicus*), A., 260.
- Sunde, C. J. See Kolthoff, I. M.
- Sundelin, G., value of results of local fertiliser trials in Sweden, B., 581.
- Sunderman, F. W., conductivity apparatus for biological fluids, A., 1485.
- Sundius, N. See Assarsson, G.
- Sundstrom, C., Terziev, G. N., and Solvay Process Co., production of sodium sesquicarbonate, (P.), B., 660.
- Sunier, A. A., and Rosenblum, C., physical methods of separating constant-boiling mixtures, A., 680.
- Sunier, A. A., and White, C. M., solubility of gold in mercury. II., A., 849.
- Super-Centrifugal Engineers, Ltd. See Forster, N.
- Superheater Co., Ltd., and Compagnie des Surchauffeurs, heat-exchange apparatus, (P.), B., 536.

- Suponitzka, F. M., physiological characteristics of fever. I. Water balance. II. Distribution of chlorides, A., 366.
effect of hydrochloric acid on the variation of the intermediary nitrogen metabolism in experimental lead poisoning, A., 498.
- Supplee, G. C., Don, O. D., Flanigan, G. E., and Kahlenberg, O. J., liquid and dry milk as anemia-producing diets, A., 1611.
- Sure, B., cow's milk as a source of vitamin-B for lactation, A., 1221.
- Sure, B., and Beach, A., dietary requirements for fertility and lactation. XXII. Milk-fat, A., 1615.
- Sure, B., and Smith, M. E., effect of vitamin deficiencies on carbohydrate metabolism. I. Influence of uncomplicated vitamin-B deficiency on blood of albino rats, A., 118.
- Surface Combustion Co., gas burners, (P.), B., 232.
- Suri, H. D. See Malhotra, K. L.
- Surra, L. See Belladen, L.
- Susarov, M. A. See Saposhnikov, A. V.
- Susemihl, F. See Anwers, K. von.
- Susich, G. von, "melting curve" of natural caoutchouc, A., 1519.
- Susich, G. von, and Wolff, W. W., X-ray study of mercerisation, B., 708.
- Susich, G. von. See also Mark, H.
- Sustmann, H. See Fischer, Franz.
- Susz, B. See Briner, E.
- Suszko, J. See Konopnicki, A.
- Sutcliffe, E. R., distillation of carbonaceous substances, (P.), B., 753*.
- Suter, C. M., and Johnson, T. B., synthesis of thiazoles containing phenol and pyrocatechol groups. II., A., 793.
- Sutherland, G. B. B. M., rotational specific heat and rotational entropy of simple gases at moderate temperatures, A., 1244.
- Sutherland, H. S. See Coffin, C. C.
- Sutherland, J. W. See Stansfield, E.
- Sutherland, L. See Westinghouse Electric & Manuf. Co.
- Sutoki, T., stress-strain relation in the impact test, B., 563.
- Sutra, R., ferric ethoxide, A., 318.
- Sutrer, H. See Wieland, H.
- Sutton, H., Sidery, A. J., Le Brocq, L. F., and Braithwaite, C., preventing corrosion of metallic surfaces, (P.), B., 914.
- Sutton, L. E. See Hammick, D. L., and Sidgwick, N. V.
- Sutton, R. M., and Mouzon, J. C., ionisation of helium by potassium positive ions, A., 656.
- Sutton, R. W. See Manley, C. H.
- Sutton, S. D., and Veedip, Ltd., thickening and treatment of latex, (P.), B., 830*.
- Suyeyoshi, Y., and Okawa, K., phospholipin and hæmolysis, A., 944.
- Suzi, A. K. See Kondyrev, N. V.
- Suzuka, T. See Kita, G.
- Suzuki, B., and Inoue, Y., acyl wandering and racemisation of glycerides, A., 736.
selective hydrogenation of unsaturated fatty acids and their constitution. I. Linoleic acid, B., 956.
- Suzuki, B., and Maruyama, T., reversibility of enzyme action. II. Synthesis of urea by urease, A., 817.
reversibility of enzyme action. III. Glycerophosphoric acid synthesised by glycerophosphatase, A., 817.
- Suzuki, B., and Nishimoto, U., cephalins of soya bean, A., 1324.
- Suzuki, E. See Shoji, T.
- Suzuki, K., catalytic reduction of geraniol and citronellal by means of platinum-black, A., 172.
- Suzuki, M. See Matsumura, S.
- Suzuki, T., photographic chemistry. I. Dispersion of silver halides through the aqueous medium, B., 687.
- Suzuki, T., Sakurai, S., and Zaidan Hoju Rikagaku Kenkyujo, filter for absorbing ultra-violet light, (P.), B., 747*.
- Svanberg, O., determination of monosaccharides in presence of lactose, A., 894.
enzymic experiments with mammary glands, A., 956.
- Svedberg, A. See Folin, O.
- Svedberg, T., ultracentrifugal dispersity determinations with protein solutions, A., 694.
- Svedberg, T., Carpenter, L. M., and Carpenter, D. C., mol. wt. of casein. I. and II., A., 356, 488.
- Svedberg, T., and Katsurai, T., mol. wt. of phycoeryan and phycoerythrin from *Porphyra tenera* and of phycoeryan from *Aphanizomenon flos aquæ*, A., 233.
- Svedberg, T., and Sjögren, B., mol. wt. of Bence Jones protein, A., 233.
mol. wt. of amandin and excelsin, A., 356.
 pH -stability regions of serum-albumin and serum-globulin, A., 1197.
- Svedberg, T. See also Krishnamurti, K., and Sjögren, B.
- Svenska Aktieb. Gas-accumulator. See Gas Accumulator Co. (United Kingdom), Ltd.
- Sveschnikov, F. N., etching figures in iron and steel, B., 1113.
- Sveschnikov, F. N., and Starodoudov, K. F., metallographic investigation of cast-iron pipe, B., 1156.
- Sveschnikova, E. A. See Smorodincev, J. A.
- Swaetichin, T. See Edfeldt, O., and Ohlsson, E.
- Swallen, L. C., and Boord, C. E., synthesis of β -bromoalkyl ethers and their use in further syntheses, A., 450.
- Swallow, J. C. See Macgillivray, W. E.
- Swan, Hunter & Wigham Richardson, Ltd. See Young, H. J.
- Swanger, W. H., melting, mechanical working, and some physical properties of rhodium, A., 530.
- Swann, S., Snow, R. D., and Keyes, D. B., catalytic hydration of olefines, A., 1552.
- Swann, S., jun., hydroxylation of double linkings, A., 1270.
- Swann, S., jun., and Edelmann, E. O., hydrogen overvoltages in glacial acetic acid, A., 1376.
- Swann, S., jun. See also King, E. P.
- Swann, W. F. G., variation of the residual ionisation with pressure at different altitudes, and its relation to cosmic radiation, A., 517.
- Swanson, C. O., evaluating the quality of wheat varieties by co-operative tests, B., 533.
- Swanson, E. E., standardisation and stabilisation of ergot preparations; biological methods of assaying ergot preparations and the hydrogen-ion concentration factor, B., 217.
- Swanson, E. E., and Hargreaves, C. C., standardisation and stabilisation of veratrum preparations and the hydrogen-ion concentration factor. VI., B., 439.
- Swanson, E. E. See also Shonle, H. A.
- Sward, G. G., settling of paints containing acid, alkaline, or neutral pigment, B., 622.
- Sward, G. G., and Gardner, H. A., constitution and drying of tung oil, B., 620.
- Sward, G. G. See also Gardner, H. A.
- Swart, E. See Smits, A.
- Swartout, H. O. See Pratt, O. B.
- Swarts, F., action of iodine on silver trifluoroacetate in presence of benzene and of chloroform, A., 63.
- Swartz, T. A., and Uhler, W. P., electric resistance material, (P.), B., 21.
- Sweeney, J. S., daily blood-sugar variation in fasting and in non-fasting subjects, A., 491.
- Sweeney, O. R. See Gilman, H.
- Sweet, A. J. See Sullivan, J. D.
- Sweet, J. E., Liesegang phenomenon in gall-stones, A., 1611.
- Sweet, (Miss) J. M., British barytes, A., 1156.
- Sweetland, E. J., and United Filters Corporation, filter, (P.), B., 87.
- Sweetland, E. J., Zenthoeffer, J. V., and Oliver United Filters, Inc., filter leaf, (P.), B., 694.
- Swenarton, J., higher alcohols of fermentation, A., 501.
- Swenson Evaporator Co., methods and means for evaporation or distillation, (P.), B., 87.
- Swenson Evaporator Co. See also Sadtler, P. B.
- Swiderek, M., flash point of activated charcoals, B., 748.
- Swientoslawski, W., ebullioscopic apparatus for the study of mixtures of liquids, A., 56, 313*.
ebullioscopic and tonometric determinations, A., 314*.
azeotropic mixtures containing several components, A., 536.
modification of adiabatic micro-calorimetry, A., 566.
homogeneity of thermochemical data, A., 862.
distillation apparatus, A., 1154, 1265.
motor spirits containing alcohol. I. and II., B., 976.
- Swientoslawski, W., and Bakowski, S., rate of evaporation of liquids from a heated platinum surface, A., 1366.
- Swientoslawski, W., and Bobińska, J., heat of combustion of camphor, azobenzene, and hydrazobenzene, A., 295, 544.
- Swientoslawski, W., and Grochowski, M., flash point of Polish coal dust, B., 697.
- Swientoslawski, W., Roga, B., and Chorazy, M., temperature of inflammation of combustible solids, B., 42.
briquetting of coal slack without the use of a binder, B., 1009.
- Swientoslawski, W., and Zlotowski, I., application of the differential ebullioscope to the investigation of azeotropic mixtures of ethyl alcohol and water, A., 849.
- Swift, C. K. See Houseman, P. A.
- Swift, E. H., use of the iodine monochloride end-point in volumetric analysis. I. Titration of iodide, A., 561.

- Swift, E. H., and Gregory, C. H., use of iodine monochloride end-point in volumetric analysis. II. Titration of arsenious acid with permanganate and with ceric sulphate, A., 561.
- Swift & Co. See Taylor, Horace F.
- Swindell, E. H., Brooke, F. W., and Swindell & Bros., W., [annealing] furnace and its operation, (P.), B., 425.
- Swindell & Bros., W. See Brooke, F. W., and Swindell, E. H.
- Swingle, H. S. See Snapp, O. I.
- Swings, P., resonance series of sulphur vapour, A., 124, 829.
variation of relative intensities of components of rotation doublets in the resonance spectrum of sulphur, A., 650.
structure of resonance line groups of sulphur vapour, A., 510.
- Swings, P. See also Gilard, P.
- Swinerton, A. A. See Gilmore, R. E.
- Swinney Bros., Ltd. See Thompson, H. A.
- Swoap, O. F. See Heyl, F. W.
- Swoboda, K., and Horny, R., determination of tantalum, tungsten, vanadium, and molybdenum in high-speed steel, B., 667.
- Sykes, G. A., method and apparatus for dehydrating, (P.), B., 268.
- Sym, E., Nilsson, R., and Euler, H. von, co-enzyme content of various animal tissues, A., 1307.
- Sym, E. A., lipase and its action. I. Synthetic action of pancreatic lipase in the system oleic acid-glycerol-water-dissolved lipase, A., 1475.
- Symmes, E. M. See Hercules Powder Co.
- Symons, E. B., gyratory crushers, (P.), B., 1096.
- Symons, E. B., and Nordberg Manufacturing Co., crushing machine, (P.), B., 1051*.
- Symons, E. B. See also Nordberg Manuf. Co.
- Synthesa Akt.-Ges., filter [candles] for use in artificial silk apparatus, (P.), B., 54.
dry-spinning of artificial silk, (P.), B., 181.
- Syntron Co. See Weyandt, C. S.
- Syözi, R. See Maeda, T.
- Szancer, H., detection of sugar in urine with *o*-nitrophenylpropionic acid, A., 633.
volumetric determination of iodine in soluble iodides, A., 725.
determination of sugar in urine, A., 947.
trinitrophenol as a sugar reagent, A., 1205.
colour reactions of eugenol and clove oil, A., 1605.
- Szancer, H. See also Bazowski, J.
- Szezeniowski, S. E., spatial distribution of photo-electrons, A., 513.
- Szebellédy, L., determination of strontium and barium in presence of one another; separation of barium as chromate, A., 182.
iodometric determination of ferrous iron, A., 1149.
determination of iron with potassium dichromate, A., 1149.
iodometric determination of quinquivalent antimony, A., 1150.
- Szegö, L., catalytic oxidation of nitric oxide, A., 713.
- Széki, T., relation between constitution and sharp taste of acylamides, A., 597.
- Szelényi, G. von. See Putnoky, L. von.
- Szelinski, detection of adulteration in milk, B., 346.
- Szell, K., fluctuation of rotation energy of polyatomic gases, A., 526.
- Szelöczey, J., and Sárkány, I., action of caffeine on the protein fraction of blood, A., 370.
- Szent-Györgyi, A. See Drury, A. N.
- Szidon, V., preparation of [solid or semi-solid compositions comprising] alkali hypochlorites, (P.), B., 1109.
- Szidon, V. See also Basset, H., and Soc. Chim. de la Seine.
- Sziklay, J., oxygen capacity of repeatedly recrystallised horse oxyhaemoglobin, A., 1199.
- Szilárd, K. See Zechmeister, L.
- Szilard, L., refrigerating machines, (P.), B., 225.
- Szilvinyi, A., proteins of barleys of Austria and the neighbouring states, B., 212.
- Sziyessy, G., and Dierkesmann, A., dispersion of the electro-optical Kerr effect in the ultra-violet, A., 18.
- Szperl, L. [with Goldflamówna, R., and Zawadzki, M.], action of sulphur on organic compounds, A., 771.
- Szucs, F. See Terroine, E. F.
- Szymanowski, W. T. See Mellon, R. R.
- T.
- Tabata, K., velocity of crystallisation of soda-lime-silica glasses, B., 460, 766.
- Taber, G. H., jun., and Sinclair Refining Co., manufacture of lubricating oils, (P.), B., 703.
apparatus for refining [mineral] oil, (P.), B., 703.
- Tabern, D. L. See Volwiler, E. H.
- Tabor, E. N. See Butler, W.
- Taboury, F., action of sulphuric acid on mercury at the ordinary temperature, A., 1006.
- Tachi, I. See Shikata, M.
- Tachibana, F., kidney lipase in the human embryo and the newborn infant, A., 491.
- Tacke, potash in bog soils, B., 961.
- Tacke, B. [with Arnd, T., Siemers, W., Poock, A., Saffron, J., and Spiecker, A.], lime requirement of lime-deficient moor soils, B., 734.
- Tacke, B., and Arnd, T. [with Siemers, W., and Hoffmann, W.], determination of the buffer capacity of soils, B., 72.
- Tada, S., and Nakazawa, F., hormone control of the colloid-osmotic pressure of the blood, A., 1479.
- Taegener, W., purification of potato and maize syrups by activated carbon ("norit"), B., 737.
- Taelen, J. C. van der, and Société Coloniale Anversoise Société Anonyme, treatment [cleaning] of copal or similar gums, (P.), B., 338.
- Täufel, K., and Dünwald, H., determination of alcohol in foods by "salting out" with potassium carbonate, B., 483.
- Täufel, K., and Marloth, B. W., determination of tartaric acid by precipitation as potassium hydrogen tartrate, A., 743.
- Täufel, K., and Müller, Josef, development of rancidity in oleic acid, A., 891.
- Täufel, K., and Preiss, W., re-esterification ("Umesterung") of neutral fats with butyric acid, B., 568.
- Tafel, F., and Kleweta, F., reactions in blowing of cupriferos nickel matt, B., 1071.
- Tafel, V., and Silke, G., determination of zinc as oxide, silicate, ferrite, sulphate, and sulphide, A., 1545.
- Taft, R., behaviour of certain lyophilic colloids in liquid ammonia, A., 693.
- Taft, R., and Barham, H., electrodeposition of metals from their liquid ammonia solutions, A., 870.
- Taft, R., and Malm, L., solvents for gum arabic, B., 737.
- Taft, R. See also Cady, H. P.
- Tagaya, T. See Nagayama, T.
- Tagliani, G., application of the locust bean in the textile industry, and especially in calico printing, B., 101.
- Tagliani, G. See also Chemische Fabrik vorm. Sandoz.
- Taguibao, H. See West, A. P.
- Tahsin, S. See Bleyer, B.
- Tainter, M. L., comparative actions of sympathomimetic compounds. (b) Pyrocatechol derivatives, A., 1472.
- Tainter, M. L., and Seidenfeld, M. A., eriocomine, a constituent of *Eriocoma floribunda*, A., 812.
comparative actions of sympathomimetic compounds. (a) "Synephrine" isomerides and ketone, A., 1472.
- Tainton, U. C., electrolytic precipitation of metals, (P.), B., 334.
[preventing liberation of spray in] electrolysis, (P.), B., 916.
[anodes for recovery by] electrolysis of zinc from impure sulphate solutions, (P.), B., 1159*.
- Tainton, U. C., and Bosqui, D., electrolytic zinc plant of the Evans-Wallower Co. at East St. Louis, Ill., B., 718.
- Tainton, U. C., and Clayton, E. T., germanium in relation to electrolytic zinc production, B., 718.
- Taipale, K. A. [with Gutner, M.], action of hydrazine hydrate on ketones in acidic solvents, A., 348.
- Taipale, K. A., and Usatschev, P. W., catalytic hydrogenation of azines. V. Hydrogenation of ketazines: the relative affinities of the methyl and ethyl groups, A., 1559.
- Taitz, N. Y., loss in burning during steel heating, B., 1155.
- Takács, E. See Gróh, J.
- Takács, I. See Ernst, E.
- Takagi, T. See Nishida, Kūsujī.
- Takahashi, G., and Yaginuma, T., physico-chemical investigations on amino-acids. II. and III., A., 683, 1241.
- Takahashi, M., behaviour of the hexone and purine bases present in the free state during incubation of the hen's egg, A., 242.
fate of hippuric acid in the chicken organism, A., 244.

- Takahashi, M., comparative biochemistry. V. Behaviour of 2-methylquinoline in the organism of the rabbit and the hen. VI. Behaviour of nitrocinnamic acid in the animal organism, A., 1313.
- Takahashi, M. See also Yoshimoto, K.
- Takahashi, T., and Asai, Y., gluconic acid fermentation. I. *Bacterium hoshigaki* var. *rosea*. II. Production of ϵ -keto-gluconic acid. III. *B. industrium* var. *hoshigaki*, A., 1621.
- Takahashi, T. See also Tanemura, K.
- Takahasi, E., inclusions in [Japanese] moulding sand, B., 148.
- Takahasi, Katuo. See Ariyama, H.
- Takahasi, Kinunosuke, change of electrical resistance produced in cold-worked metals by annealing, A., 1354.
- Takamatsu, Y. See Fukushima, J.
- Takamine, J., Takamine, J., jun., Fujita, N., and Takamine Ferment Co., manufacture of vitamin products, (P.), B., 1088.
- Takamine, J., jun. See Takamine, J.
- Takamine, T., and Suga, T., near infra-red spectrum of helium and mercury. II., A., 649.
- extension of Balmer series in laboratory, A., 1327.
- Takamine Ferment Co. See Takamine, J.
- Takashio, T. See Kameyama, N.
- Takata, R., utilisation of micro-organisms for human food materials. V. Composition for mycelium of *Aspergillus oryzae*. VI. Fats. VII. Nitrogenous bases, A., 250.
- utilisation of micro-organisms for human food materials. VIII. Proteins. IX. Nucleic acid. X. Carbohydrates of the mycelium of *Aspergillus oryzae*. XIV.—XVI. Culture of *Aspergillus oryzae*. III. Relation between the hydrogen-ion concentration of the medium and the yield of mycelium. IV. Influence of sodium chloride, sodium sulphate, and sugar concentration on the growth of the mycelium. V. Relation between the duration of culture, yield and nitrogen content of mycelium, and sugar concentration, A., 375.
- utilisation of micro-organisms for human food materials. XI. Sterols of the mycelium of *Aspergillus oryzae*. XII. and XIII. Culture of *A. oryzae*. I. Relation between the growth of mycelium and biosubstances. II. Relation between the growth of mycelium and buffer strength of the medium, A., 502.
- Takayama, Y., utilisation of soya beans. III., B., 753.
- Takeda, S., equilibrium diagram of the iron-tungsten system, A., 1245.
- Takeda, S. See also Matsuo, G., and Tomii, R.
- Takegami, S., oxidation at platinum anodes of cathodically reduced chromic acid solutions, A., 432.
- Takei, K., relation between ash content and calorific value of Chikuhō coal, B., 1137.
- Takei, S., and Koide, M., rotenone, the active constituent of *Derris* root. III. Tubaic acid, A., 216.
- Takei, S., Koide, M., and Miyajima, S., rotenone, the active constituent of *Derris* root. IV. Isomeric relationships between rotenone and isorotenone, A., 609.
- rotenone, the active compound of *Derris* root. V. Constitution of rotenic acid, A., 1044.
- Takei, T. See Kato, Y.
- Takekomi, N., velocity of inversion of sucrose. I., A., 300.
- velocity of inversion of sucrose. III. Inversion by Koji-invertase, A., 1256.
- Taketomi, N., and Minra, K., velocity of inversion of sucrose. II. Influence of temperature and of ultra-violet rays, A., 1001.
- Takeyama, S., determination of the direction of the axis of a fibrous arrangement of micro-crystals, A., 139.
- crystal forms of single crystals of copper. I. Crystals produced by stress-annealing method. II. Crystals deposited on the surface of a single-crystal plate by electrolysis, A., 1503.
- Taku, A. See Kaziro, K.
- Takuma, T. See Pincussen, L.
- Takuwa, M., liver function; effect of addition of dextrose on bound sugar in blood of liver patients, A., 1207.
- Talbot, J. H. See Bock, A. V.
- Talbot, R. H. See Noller, C. R.
- Talbot-Crosbie, J. B., and Wise, H., manufacture or refining of sugar, (P.), B., 1085.
- Talenti, M., determination of p_H of blood, A., 491.
- Taliaferro, T. L. See Dewey, B.
- Talmud, D., behaviour of hydrophilic and hydrophobic powders in benzene-water mixtures, A., 412.
- Talmud, D., and Lubman, N. M., flotation and p_H . II. Flotation of hydrophilic powders and p_H , A., 411.
- flotation and electric charge of precipitates, A., 411.
- micro-method for determination of angle of contact, A., 992.
- Talvitie, A., catalytic decomposition of tartaric acid, A., 322.
- Tama, C., and Electric Furnace Co., Ltd., heating or melting of metals or alloys by induced currents of electricity, (P.), B., 464.
- Tama, C. See also Bucherer, H. T.
- Tama, M., new method of preparing copper wire-bars, B., 1071.
- Tamachi, M. See Bodman, G. B.
- Tamada, H. T. See Kreuger, A. P.
- Tamaru, K., quenched steels, B., 285.
- Tamaru, S., and Andō, N., catalysis of reactions between solids; catalytic formation of stannate from lime and stannic oxide, A., 171.
- Tamaru, S., and Koizumi, Y., treatment of material containing tin, (P.), B., 333.
- Tamchyna, J. V., viscose as a qualitative reagent, A., 443.
- Tamisier. See Aumeras.
- Tamiya, H., and Hida, T., acid production, respiration, oxidase reaction, and reducing power of various species of *Aspergillus*, A., 375, 1067.
- Tamiya, H. See also Shibata, K.
- Tamm, I., quantum theory of molecular scattering of light in solid bodies, A., 397.
- interaction of free electrons and radiation according to Dirac's theory of electrons and quantum-electrodynamics, A., 1081.
- Tamm, O., experimental weathering of feldspar, A., 315.
- clay formation and the weathering of feldspars, B., 473.
- Tammann, G., theory of recrystallisation, A., 140.
- palladium-hydrogen and chromium-nitrogen, A., 699.
- temperature variation of the entropy of a crystal and its glass, A., 847.
- relation of the difference in heat content of a substance in the vitreous and crystalline states to the softening point of the glass and the m. p. of the crystals, A., 862.
- determination of crystallite orientation, A., 1350.
- behaviour of glasses in the softening interval, A., 1358.
- recrystallisation [of metals], A., 1506.
- Tammann, G., and Arntz, F., spreading of mercury globules on metallic surfaces, A., 1365.
- Tammann, G., and Bandel, G., thermal expansion of boric oxide, arsenious oxide, metaphosphoric acid, and lead glasses, and the variation of the volume with the crystallisation pressure, A., 1359.
- Tammann, G., and Crone, W., recrystallisation of metals, A., 530.
- Tammann, G., and Dreyer, K. L., distillation of metals in a high vacuum, and detection of small amounts of foreign metals, A., 880.
- rate of grain-boundary displacement in the primary and secondary recrystallisation of aluminium, B., 866.
- intercrystalline substance in lead and its effect on grain size, B., 866.
- Tammann, G., and Gronow, H. E., von, specific heat, heat conductivity, and adiabatic temperature change of glasses over the softening interval, A., 1358.
- Tammann, G., and Hartmann, H., dependence of some optical properties on temperature in the softening interval of glasses, A., 285.
- Tammann, G., and Jenckel, E., increase of density of glasses on solidification under high pressure, and reversion to the normal value of heating, A., 145.
- density of crystals after cooling under pressure, A., 404.
- change of colour on cold working, A., 1355.
- crystallisation velocity and number of nuclei of glycerol in relationship to the temperature, A., 1379.
- rate of expansion of glass threads on heating, B., 862.
- Tammann, G., and Klein, R., variation with temperature of certain elastic properties of glasses over the softening interval, A., 1358.
- Tammann, G., and Oelsen, W., dependence of concentration of saturated mixed crystals on temperature, A., 405.
- reactions in the melting of glass batches, A., 1511.
- Tammann, G., and Röh, K., effect of temperature at which molten aluminium is heated prior to crystallisation on number of crystallites, A., 846.
- Tammann, G., and Rohmann, A., additivity of specific heats of crystalline compounds, A., 986.
- Tammann, G., and Rüdiger, H., change in electrical resistance and hardness of alloys of lead and of thallium with time, A., 1360.

- Tammann, G., and Schrader, H., temperature at which glass containing gold becomes red, and the temperature at which induced birefringence in glass disappears, A., 156.
- Tammann, G., and Thiele, H., rates of combustion of mixtures of gases, A., 1378.
- Tamura, K., Kihara, G., and Ishidate, M., action of Japan camphor on the heart. III., A., 955.
- Tamura, K. See also Kawai, S.
- Tamura, M. See Iwatsura, R.
- Tamura, T. See Ishida, Y.
- Tanaka, C., action of perbenzoic acid on glucal and its derivatives, A., 1273.
- Tanaka, H., glycogen in the nerve cells of the central nervous system of mammals. IV. Changes in glycogen distribution after injection of insulin. V. Post-mortal changes in glycogen distribution. VI., A., 254.
- Tanaka, J., antagonistic action of choline against adrenalinic glycogen mobilisation, A., 1067.
- Tanaka, K., lactic acid and lactacogenin in the organism during avitaminosis-B in the dog, A., 380.
- Tanaka, Kenzo, orientation of single crystals of tin, A., 279. recrystallisation of aluminium. I., A., 671.
- Tanaka, M., Morikawa, K., and Morikawa, I., utilisation of high-temperature coal-tar pitch. I. Preparation of creosote oil substitute from pitch, B., 1098.
- Tanaka, S., and Matano, C., diffusion of metals in the solid state. I., A., 1509.
- Tanaka, Sataro, constitution of a substance obtained by esterification of ferulic acid, A., 473.
- Tanaka, Shinsuke, and Tsuji, A., X-ray diffraction in liquids. I. Aqueous and non-aqueous solutions, A., 527. X-ray diffraction in liquids. II. Benzene, cyclohexane, and their homologues, A., 672. X-ray diffraction in liquids. III. Influence of temperature, A., 1504.
- Tanaka, Shinsuke. See also Ishino, M.
- Tanaka, Sinryo. See Osato, S.
- Tanaka, Y., and Fujisawa, K., high-pressure hydrogenation of shale oil. I., B., 542.
- Tanaka, Y., and Hara, G., comparison of various organic reagents for accelerating the vulcanisation of rubber, B., 521.
- Tanaka, Y., Kobayashi, R., and Arakawa, I., crystallisation of paraffin. IV. Paraffin crystals from low-temperature coal tar, B., 45.
- Tanaka, Y., Kobayashi, R., and Shimizu, K., crystal forms of mono-basic fatty acids, A., 1504.
- Tanaka, Y., and Kuwata, T., adsorption from organic solvents by Japanese acid clay, A., 28.
- Tanaka, Y., and Nagai, Y., inflammability of hydrogen. VIII. Energy required to ignite hydrogen-air mixtures and the effect of explosion inhibitors. IX. Inflammability of hydrogen-nitrogen and of hydrogen-carbon dioxide mixtures, and the effect of explosion inhibitors. X. Prevention of flame propagation in hydrogen-air mixtures, A., 546.
- Tanaka, Y., and Nagai, Y., inflammability of hydrogen. XI. Prevention of flame propagation in hydrogen-air mixtures by wire gauze, A., 1528.
- Tanaka, Y., and Nakamura, Mitsuo, properties of chabazite, A., 1267. state of water and the active surface of Japanese acid clay, A., 1551. antioxidants of fats and oils. I. Antioxygenic powers of α - and β -naphthols, B., 776. antioxidants of fats and oils. II. Action of phenols and some substitution products of monohydric phenol. III. Combined effects of antioxidants and driers on the oxidation of linseed oil. IV. Action of antioxidants of rubber and some organic compounds on the oxidation of drying oils, B., 776.
- Tananaev, I., action of oxalic acid on fluorides, A., 1140.
- Tananaev, N. A., drop reaction for the mercurous ion, A., 1148.
- Tananaev, N. A., and Babko, A. K., volumetric determination of alkali metals in glass, B., 663. volumetric determination of silica in glass, B., 863. volumetric determination of silicic acid in silicates, B., 1110.
- Tananaev, N. A., and Dolgov, K. A., drop method of qualitative analysis for gold, palladium, and platinum present together and in the presence of other elements encountered in ordinary qualitative analysis, A., 185.
- Tananaev, N. A., and Lazarkevitch, N. A., oxalate method of determining titre of hyposulphite using borax, A., 441.
- Tananaev, N. A., and Lazarkevitch, N. A., action of oxalic acid on alkali chlorides, A., 1146.
- Tananaev, N. A., and Ostroshinskaja, G. I., reaction between mercurous and nitrite ions, A., 1138.
- Tananaev, N. A., and Pantchenko, G. A., drop method of detection of vanadium and tungsten, A., 54.
- Tanasescu, E. See Ostrogovich, A.
- Tanasescu, I., and Macovsky, E., photochemical reactions among derivatives of *o*-nitrobenzylidenacetals; *o*-nitrobenzyliden- $\alpha\beta$ -glyceride, A., 213. photochemical reactions among derivatives of *o*-nitrobenzylidenacetals. IV. Tri-*o*-nitrobenzylidenemannitol, A., 450. photochemical reactions among derivatives of *o*-nitrobenzylidenacetals. V. Tri-*o*-nitrobenzylidenesorbitol, A., 1039.
- Tanberg, R., cathode of an arc drawn in vacuum, A., 832.
- Tancov, N. V., condensation of vapours by adiabatic expansion of mixtures of them with air in connexion with change of entropy during vaporisation, A., 404.
- Tandberg, J. G., and Electrolux Servel, refrigerant, (P.), B., 2.
- Tandler, R. See Ehrenreich, A.
- Tandon, G. L. See Yajnik, N. A.
- Tanemura, K., recovery of viscose spinning bath. II. Sp. heat of Glauber's salt, B., 1022.
- Tanemura, K., and Kohno, T., viscose. I. Analysis of barium thiocarbonate, B., 322. treatment of alkaline drain from [a Japanese] viscose factory, B., 551.
- Tanemura, K., Kohno, T., and Miyoshi, S., viscose. II. Influence of sodium sulphite on the reaction between carbon disulphide and caustic soda, B., 322.
- Tanemura, K., and Miyoshi, S., viscose. IV. Volumetric analysis of viscose containing sodium sulphite; change of each component during the ripening of viscose. VI. Influence of sodium sulphite on viscose, B., 758. viscose. VII. Acid decomposition of viscose. VIII. Gases evolved in spinning, reeling, washing processes, and in cabinet of viscose factory, B., 857. recovery of viscose spinning bath. I. Rapid analysis of sodium sulphate in the spinning bath, B., 1022.
- Tanemura, K., and Takahashi, T., viscose. III. Determination of free and thiocarbonate-carbon disulphide in viscose; their change during ripening of viscose. V. Sodium sulphate in viscose containing sodium sulphite, B., 758.
- Tanfiliev, V. G., lowering of the carbonate horizon in the soils in the vicinity of Odessa due to irrigation, B., 29.
- Tang, Y. C. See Schmidt, Erich.
- Tangl, H., micro-determination of unsaturated fatty acids containing four double linkings, A., 1485.
- Tangl, H., and Berend, N., fat absorption by desaturation of fatty acids, A., 951.
- Tangring, O., and American Steel & Wire Co. of New Jersey, method and apparatus for annealing, (P.), B., 149.
- Taniuchi, Y., and Kiyohara, T., antagonistic action of atropine against the adrenaline sugar mobilisation in the liver, A., 1069.
- Taniuchi, Y. See also Ishii, R., and Kiyohara, T.
- Tankard, J., and Graham, J., determination of the viscosity of cuprammonium solutions of cellulose, B., 1022.
- Tannahill, R. W., determination of lead in biological material, A., 1486.
- Tanner, C. C., and Masson, I., pressure of gaseous mixtures. III., A., 283.
- Tanner, H. G., improved Pirani gauge, A., 730.
- Tanner, H. G. See also McBain, J. W.
- Tanner, M. G. See Garner, W. E.
- Tanret, G., amount of sorbitol in the rowan, A., 967.
- Tanret, G. See also Penau, H., Pieraerts, J., and Simonnet, H.
- Tao, W. S., rice starch. I. Chemical changes of starch during germination of rice in the dark. II. Effect of temperature on germination of rice in the dark, A., 648. rice starch. III. and IV. Action of enzymes on rice starch. I. and II., A., 813. rice starch. V. Comparative studies on rice, boiled rice, and mochi, A., 1324.
- Tapernoux, A., and Katrandiev, K., heat-coagulation of milk as a function of acidity, B., 528.
- Tapia, E., and Hernández, M. A., reaction between magnesium phenyl bromide and epichlorohydrin by the Grignard method, A., 1403.
- Tapia, E. See also Ribas, L.

- Taplay, J. G. See Forwood, G. F.
 Taplin, B. See Lavers, H.
 Tappermann, F. See Pfeiffer, P.
 Tar & Petroleum Process Co., treatment of hydrocarbons, (P.), B., 599.
 Tar & Petroleum Process Co. See also Knowles, A. S.
 Taragno, P., and Società Anonima per l'Impiego Razionale degli Olii Combustibili I.G.N.E.A., liquid fuel burners, (P.), B., 94.
 Taranov, K. N., absorbing complex of soil, B., 294.
 Tarasenkov, D., f. p. of benzene-toluene, -ethyl alcohol, and -gasoline mixtures, A., 1245.
 Tarassov, B. K., technical and medicinal petrolatums from Grozni mixed-base fuel oil, B., 131.
 Tarassov, B. K., and Rudenko, I. V., reeracking [of kerosene], B., 595.
 Tarbox, J. P. See Budd Wheel Co.
 Taricco, L., blackening, by oxidation, of iron and steel, and articles thereof, (P.), B., 564.
 Tarlé, M., solution velocity of metals, A., 712.
 sensitivity of gelatinised [smokeless] powders, B., 1170.
 Tarnawski, F., preservation of gherkins, etc., (P.), B., 838.
 Tarr, W. A., origin of zinc deposits at Franklin and Sterling Hill, New Jersey, A., 188.
 Tarrant, A. N., Woodall-Duckham continuous circular tunnel kiln, B., 1110.
 Tarrant, G. T. P., absorption of hard monochromatic γ -radiation, A., 1085.
 Tartakowsky, P., photo-electric investigations with solid dielectrics, A., 17.
 Tartar, H. V., and Hoard, J. L., equilibrium between nitrogen and carbon dioxide in the electric arc, A., 418.
 Tartar, H. V., Lothrop, R. E., and Pettengill, G. F., effect of electrolytes on the inversion of emulsions, A., 413.
 Tartar, H. V., and Walker, M., oxygen electrode: an adsorption potential, A., 998.
 Tartar, H. V. See also Wellman, V. E.
 Tartarini, G. See Scagliarini, G.
 Tasaki, M., ternary system of Cu-Sn-Sb, A., 285.
 Tasaki, S., and Yamamoto, J., fatty oil of bull frog, A., 1203.
 Tashiro, S., and Tietz, E. B., test for laevulose (ketose) in carbohydrates, A., 1198.
 Tasman, A., baking value of flour, and possibility of determining it in the laboratory, B., 881.
 Tatarskaja, R., preparation of hide powder, B., 433.
 Tate, W. R. See Imperial Chem. Industries, Ltd.
 Taterka, H., sugar metabolism and water regulation. II. Treatment of cardiac diabetes with insulin and dextrose, A., 1207.
 Taterka, H., and Oestreicher, F., sugar metabolism and water economy. I., A., 366.
 Tattersall, H. J. See Imperial Chem. Industries, Ltd.
 Tatum, W. W. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
 Tauber, H., crystalline urease; inactivation by ultra-violet light, by sunlight with aid of a photo-dynamic agent, and by trypsin, A., 1217.
 Tauber, H. See also Földes, E.
 Taubmann, A. See Reh binder, P.
 Taubmann, G., [pharmacological] action of organic thiocyanates, A., 1213.
 Tauchert, F., metabolism of insects, A., 493.
 Taussig, K., pickling [of iron and steel], B., 14.
 Tausz, J., purification of hydrocarbon oils, (P.), B., 938*.
 Tausz, J., and Donath, P., oxidation of hydrogen and hydrocarbons by bacteria, A., 1318.
 Tausz, J., and Görlacher, H., oxidation of phosphorus by oxygen, A., 876.
 Taverner, L. See Gardner, D.
 Tavroges, J. See Gates, W. R. B. S.
 Tawada, K., effect of hydrogen and water on radiation from cyanogen-oxygen flame, A., 660.
 Tawada, K. See also Garner, W. E., and Hall, D. A.
 Tawde, N. R., and Paranjpe, G. R., extinction coefficients of the mixtures of chromates and dichromates, A., 992.
 Taylor, A. J. See Staples, R. R.
 Taylor, A. M., infra-red absorption spectra of salts containing the group AX_4 , A., 12.
 band spectrum of potassium permanganate in the crystalline state and in solution, A., 12.
 probable infra-red spectrum of sulphur vapour, A., 13.
 Raman effect of AX_4 groups, A., 15.
 Taylor, C. See Molybdenum Corp. of America.
 Taylor, E., and Ferryhill Foundry & Engineering Co., Ltd., coal and similar crushers, (P.), B., 229.
 Taylor, E. A. See Grasselli Chem. Co.
 Taylor, E. I. See Widdows, S. T.
 Taylor, E. McK. See Woodman, R. M.
 Taylor, E. R. See Clarke, H. T.
 Taylor, F. H. L., determination of potassium in blood-serum, A., 944.
 Taylor, F. H. L., and Young, A. G., biochemistry of mercury compounds. I. Effect of acids, bases, salts, and blood-serum on diffusion of mercury compounds *in vitro*, A., 498.
 Taylor, F. T., and Hanson-Van Winkle-Munning Co., apparatus for electrolytic and similar treatments, (P.), B., 22.
 Taylor, G. B., Kistiakowsky, G. B., and Perry, J. H., platinum-black catalysts. I. Physical properties and catalytic activity. II. Heats of adsorption, A., 552.
 Taylor, G. B., and Starkweather, H. W., reduction of metal oxides by hydrogen, A., 1002.
 Taylor, G. B. See also Lenher, S.
 Taylor, G. I., application of Osborne Reynolds' theory of heat transfer to flow through a pipe, B., 1007.
 Taylor, H. A., decomposition of acetone in contact with platinum, A., 44.
 Taylor, Harden F., and Atlantic Coast Fisheries Co., treatment of comestibles with smoke, (P.), B., 792*.
 Taylor, Harden F. See also Atlantic Coast Fisheries Co.
 Taylor, Horace F., Scherubel, E. F., Phelps, G. W., and Swift & Co., bleaching fats and oils, (P.), B., 957.
 Taylor, H. J. See Knowles & Co. (Wooden Box), Ltd., J.
 Taylor, Howard S. See Crook, W. J.
 Taylor, Hugh S., second report of the Committee on Photochemistry, National [U.S.A.] Research Council, A., 1533.
 rôle of the catalyst in the processing of coal, B., 446.
 Taylor, Hugh S., and Bates, J. R., photo-decomposition of molecules having diffuse band spectra, A., 554.
 Taylor, Hugh S., and Emeleus, H. J., photosensitisation by ammonia, A., 871.
 Taylor, Hugh S., and Hill, D. G., reactions of ethylene, hydrogen, and the saturated hydrocarbons under the influence of excited mercury, A., 46.
 Taylor, Hugh S., and Jones, William H., thermal decomposition of metal alkyls in hydrogen-ethylene mixtures, A., 757.
 Taylor, Hugh S., and Lavin, G. I., surface reactions of atoms and radicals. I. New approach to the problem of specific surface action, A., 870.
 Taylor, Hugh S. See also Du Pont de Nemours & Co., E. I., and Spence, R.
 Taylor, J., and Keller, A. V., adhesives, (P.), B., 919.
 impregnation of leather or waste leather and manufacture of articles therefrom, (P.), B., 1081.
 Taylor, J. B., reflexion of beams of the alkali metals from crystals, A., 515.
 Taylor, J. H. See Courtaulds, Ltd., and Craigbank Chem. Co., Ltd.
 Taylor, J. K., and Penman, F., soil survey of Woorinen Settlement, Swan Hill Irrigation District, Victoria, A., 1551.
 Taylor, K. See Davies, E. C. II.
 Taylor, L. See Cowper-Coles, S. O.
 Taylor, L. S., analysis of diaphragm system for the X-ray standard ionisation chamber, A., 138.
 absorption measurements of the X-ray general radiation, A., 1502.
 Taylor, L. S., and Singer, G., standard ionisation chamber, A., 1502.
 Taylor, L. S. See also Richtmyer, F. K.
 Taylor, M. C. See McMullin, R. B., and Mathieson Alkali Works.
 Taylor, N. W., crystal structures of the compounds Zn_2TiO_4 , Zn_2SnO_4 , Ni_2SiO_4 , and $NiTiO_4$, A., 1241.
 Taylor, N. W. See also Rohrman, F. J.
 Taylor, P. B., voltage-resistance relations in the mercury arc spectrum, A., 830.
 Taylor, R., extraction of helium from monazite sand, B., 56.
 Taylor, R. See also Morgan, G. T.
 Taylor, R. K., catalysis by sodium chloride of oxidation of carbon, A., 1132.
 removal of gases from liquids, A., 1396.
 Taylor, R. S. See Electrolux, Ltd.
 Taylor, S. See Gen. Eng. Co. (Radcliffe), Ltd.
 Taylor, T. C., and Walton, R. P., characterisation of starches and their amyloses, A., 72.

- Taylor, *T. W. J.*, conversion of α -benzilmonoxime into the β -oxime by animal charcoal, A., 779.
- Taylor, *T. W. J.*, and *Forsecy, L. A.*, bromine chloride: action of mixtures of chlorine and bromine on aliphatic diazo-compounds, A., 1565.
- Taylor, *T. W. J.*, and *Marks, M. C.*, configurations of the benzilmonoximes, A., 1586.
- Taylor, *W.*, manufacture of ceramic structures, B., 713.
- Taylor, *W. H.*, structure of andalusite, Al_2SiO_5 , A., 672.
- Taylor, *W. H.*, and *West, J.*, structure of norbergite, A., 280.
- Taylor, *W. H.* See *Náray-Szabó, S.*
- Taylor, *William H.*, and *Shaw, C.*, centrifugal steam dryer or separator, (P.), B., 590.
- Taylor, *W. I.* See *Brit. Celanese, Ltd.*
- Taylor (Trongate), *Ltd., J.* See *Robertson, A.*
- Taylor-Wharton Iron & Steel Co., iron or steel alloys [manganese steel], (P.), B., 1158.
- Tazawa, *B.*, mechanism of nitriding of pure iron, B., 560.
- Tchakirian, *A.* See *Bardet, J.*
- Tchefranov, *V.* See *Tischtschenko, I.*
- Tcherniac, *J.*, manufacture of *o*-anisidine and *o*-aminophenol ethers, (P.), B., 410*.
- Teague, *M. C.*, and *American Rubber Co.*, method of forming tacky rubber compound and products, (P.), B., 1080.
- Teague, *M. C.* See also *Hopkinson, E.*
- Te Aroha Dairy Co., *Ltd.*, deodorisation, pasteurisation, and concentration of fluids, (P.), B., 1097.
- Teater, *H.*, coking retort, (P.), B., 1100.
- Tebenikhin, *E. F.*, determination of hardness of water, B., 884.
- Tecca, *C.*, and *Del Turco, C. R.*, manufacture of a cork product, (P.), B., 899.
- Technicolour Motion Picture Corporation, and *Tuttle, B. S.*, cleaning gelatinous surfaces [of photographic films], (P.), B., 121.
- Technochemical Laboratories, *Ltd.* See *Söderlund, O.*
- Technochemie Akt.-Ges., manufacture of earthenware vessels resistant to hydrochloric acid, (P.), B., 241.
- Teece, *E. G.* See *Haworth, W. N.*
- Teegan, *J. A. C.*, electron scattering and high-frequency radiation, A., 6.
- galvanometric method of measuring electrolytic resistance, A., 1375.
- Teegan, *J. A. C.*, and *Rendall, G. R.*, photo-electric method of integrating sunlight, A., 1080.
- Tefft, *R. F.* See *Scatchard, G.*
- Tefft, *T. D.*, Glost warping of white wall tile, B., 144.
- Teieh, *B.*, guinea-pig's blood, A., 1463.
- Teichfeld, *A.*, earthenware glaze preparation, B., 1066.
- Teichmann, *A.*, measurement of weak alternating currents by tellurium-platinum thermoclements, A., 402.
- Teichmann, *H.* See *Fleischer, R.* and *Steinkopf, W.*
- Teichmann, *L.* See *Henglein, F. A.*
- Teik, *G. L.* See *Georgi, C. D. V.*
- Teinturerie de la Rize, sizing of fibrous materials, (P.), B., 281.
- Teisen, *T.*, furnaces for annealing glass and other articles, (P.), B., 510.
- Teiss, *R. V.*, micro-iodometry, A., 1010, 1542.
- Teitelbaum, *M.* See *Berg, R.*
- Teitel-Bernard, *A.*, modification of the registering mercury manometer, A., 186.
- Teitge, *H.*, excretion of purine bases in the urine in chronic myelotic leucæmia, A., 241.
- Telefunken Gesellschaft für drahtlose Telegraphie m.b.H., [selenium] cells which are sensitive to infra-red rays, (P.), B., 380.
- manufacture of piezo-electric, pyro-electric, and similar dielectrics, (P.), B., 566.
- stabilisation of non-crystalline, piezo-electric microphone plates, (P.), B., 673.
- glow-discharge lamps, (P.), B., 724.
- electric insulating material, (P.), B., 1160.
- Telephon-Apparat Fabrik E. Zweisusch & Co. See *Neumann, P.*
- Teletov, *J. S.*, and *Andronikova, N. N.*, determination of manganese, iron, and aluminium in presence of phosphoric acid, A., 313, 1012.
- determination of manganese and iron by successive titration with permanganate, B., 15.
- Teletov, *J. S.*, and *Pelich, N. D.*, solubility of sulphur in certain saturated hydrocarbons, in the benzene series, and in chloro-substituted benzenes, A., 285.
- solubility curves of sulphur in polychlorides of benzene and their mixtures with benzene of b. p. 200—235°, A., 850.
- Teletov *J. S.*, and *Veleschiniec, A. D.*, preparation of copper peroxide, A., 872.
- Telex Apparatebau-Ges.m.b.H., recovery of waste heat in the drying of brown coal, etc., (P.), B., 803.
- Teller, *S. I.*, mineral metabolism in infancy. I. Mineral constituents of human milk and cow's milk, A., 1466.
- mineral metabolism in infancy. II. Utilisation of mineral elements in human milk, A., 1615.
- Telle, *L. F.*, sulphiting of musts at vintage, B., 344.
- Teller, *E.*, the hydrogen molecule ion, A., 657.
- theory of ferromagnetism, A., 844.
- Tellera, *G.*, nipagin [methyl *p*-hydroxybenzoate] as a preservative for 3% hydrogen peroxide solution, B., 36.
- Temple, *G.*, operational wave equation and the energy levels of the hydrogen atom, A., 837.
- wave mechanics of optical rotation and of optically active molecules, A., 980.
- operational wave equation and the Zeeman effect, A., 1077.
- matrix mechanics of the spinning electron, A., 1493.
- Templeton, *A. H.*, [apparatus for] pasteurisation [and deodorisation] of milk, cream, etc., (P.), B., 216.
- Templeton, *H. L.*, and *Sommer, H. H.*, processed cheese, B., 1044.
- Templin, *V.* See *Schuetz, H. A.*
- Tenney, *F. G.*, and *Waksman, S. A.*, composition of natural organic materials and their decomposition in the soil. V. Decomposition of various chemical constituents in plant materials, under anaerobic conditions, B., 960.
- Teorell, *I.* See *Hammarsen, E.*
- Teplow, *J.*, and *Koschevnikova, A.*, electrolyte content of blood-serum in heart and vascular diseases, A., 366.
- Teppema, *J.* See *Goodyear Tire & Rubber Co.*
- Terao, *T.*, growth of grey cast iron by repeated heating, B., 559.
- Terashima, *S.*, tributyrinase of the lymph. I. Properties compared with those of tributyrinases from blood and pancreas. II. Passage of enterally and parenterally introduced enzymes (tributyrinase and diastase) into the lymph; tributyrinase of the urine, A., 947.
- Terashima, *S.* See also *Gyotoku, K.*
- Terenin, *A.*, photo-ionisation of salt vapours, A., 1238.
- Terenin, *A.* See also *Eliashovich, M.*
- Terényi, *A.* See *Bodnár, J.*
- Terlikowski, *F.*, reaction and phosphate content of soil, B., 386, 680.
- Terlikowski, *F.*, and *Krölikowski, L.*, determination of water-soluble phosphorus compounds in soils, B., 578.
- Ter-Nedden, *W.*, chemical reactions in the Petit process [of gas purification], B., 355.
- Terni (Società per l'Industria e l'Elettricità), Siemens-Martin furnaces, (P.), B., 822.
- Ternstedt Manufacturing Co., McCullough, *J. F. K.*, and *Gilchrist, B. W.*, chromium plating and baths therefor, (P.), B., 199.
- Ternynck, *L.* See *Soc. Anon. des Sucreries Ternynck.*
- Terpstra, *P.* See *Backer, H. J.*
- Terres, *E.*, and *Kronacher, H. K.*, analysis of [solid] fuels, B., 1051.
- Terres, *E.*, and *Steck, W.*, origin of coal and oil, B., 747.
- Terres, *E.*, and *Wieland, J.*, influence of pressure on the ignition velocity of explosive mixtures of methane and air, B., 356.
- Terrey, *H.*, supposed dehydration of hydrated platinumocyanides on cooling, A., 1141.
- Terrien, *J.* See *Bruhat, G.*
- Terrill, *J. N.* See *Schuetz, H. A.*
- Terrisse, *H.*, and *Dufour, L.*, converting high-boiling hydrocarbons into low-boiling hydrocarbons, (P.), B., 134.
- Terroine, *E. F.*, preparation of artificial milks for the rearing of cattle, B., 119.
- Terroine, *E. F.*, and *Bonnet, R.*, utilisation by the organism of energy liberated by oxidations, and the food value of alcohol, A., 245.
- energy of growth. XIII. Energy yield in the development of *Aspergillus niger* on various ternary substances, A., 643.
- Terroine, *E. F.*, and *Hatterer, C.*, are the fatty acids of the phosphatides of homeotherms independent of the nature of the food? A., 1061.
- Terroine, *E. F.*, *Hatterer, C.*, and *Roehrig, P.*, fatty acids of the phosphatides in the tissues of homeotherms, A., 1056.
- fatty acids of the phosphatides of poikilotherms, higher plants, and micro-organisms, A., 1056.
- Terroine, *E. F.*, and *Reichert, T.*, action of mineral substances on endogenous nitrogen metabolism, A., 244, 1209.
- action of sodium chloride on nitrogen metabolism, A., 638.

- Terroine, E. F., and Szucs, F., relation between purine-nitrogen and protein-nitrogen in micro-organisms, A., 251.
- Terroux, F. R. See Williams, E. J.
- Terry, A., jun. See Dorr, J. V. N.
- Terry, (Miss) E. M. See Roberts, E. N.
- Teruuchi, T., Wada, C., and Oyama, T., orizatoxin, A., 827.
- Terwilliger, C. W., centrifugal dryer, (P.), B., 1134.
- Terzian, H. G. See Humphreys & Glasgow, Ltd.
- Terziev, G. N. See Sundstrom, C.
- Tesarik, E. See Dubský, J. V.
- Teske, W. See Clusius, K.
- Teter, W. E., bubble tower, (P.), B., 691.
- Teterin, V. K. See Salkind, J. S.
- Tetley, U., anatomical development of the apple and some observations on the "pectic constituents" of the cell walls, A., 966.
- Teunissen, H. P., velocity measurements on the opening of the furan ring in hydroxymethylfurfuraldehyde, A., 1256.
- Teuscher, W., ultra-violet ray analysis as applied to coal-tar pitch and bitumen, B., 595.
- Texas Co. See Hadaway, W. S., jun., Hall, F. W., Steen, A. B., Stratford, W. M., and Watson, C. W.
- Texier, D. A. L. See Manuf. de Machines Auxiliaires pour l'Electr. et l'Ind.
- Textile & Filature Société Anonyme, and Placquet, G., [apparatus for] opening and cleaning of fibrous materials, (P.), B., 656.
- Textiles (New Process), Ltd., treatment of jute fibre and analogous fibres, (P.), B., 10.
- manufacture of textile fibres, (P.), B., 98.
- Textiles (New Process), Ltd., and Viallet, J., [apparatus for] conversion of vegetable fibres into fibres resembling wool, (P.), B., 554.
- Tezak, B., determination of sulphate ion in the presence of lead in hydrochloric acid solution, A., 1542.
- Thakur, R. S. See Kon, G. A. R.
- Thalhofer, W., and Aktien-Gesellschaft für Chemische Industrie (in Liechtenstein), protection of metal surfaces against incrustation and corrosion, (P.), B., 202.
- Thalinger, M., and Volmer, M., platinum-hydrogen electrode, A., 1525.
- Thame, J., and Langton, W. E., apparatus for liquation [of sulphur, etc.], (P.), B., 443.
- Thannhauser, S. J., and Angermann, M., nuclein metabolism. XXI. Enzymic fission of thymus-nucleic acid with liver-nucleotidase for the production of purine- and pyrimidine-carbohydrate complexes, A., 249.
- nuclein metabolism. XXII. Enzymic fission of thymus-nucleic acid with liver-nucleotidase; thyminnucleoside, A., 1065.
- Thannhauser, S. J., and Fromm, F., production of large quantities of the cholesterol-free portions of the unsaponifiable fraction of liver, A., 632.
- Tharaldsen, F. See Norsk Handels- og Industrilaboratorium A/S.
- Thau, A., quick and accurate method of determining moisture in coal and coke, B., 355.
- removal of sulphur dioxide from flue gases, B., 801.
- economics and developments of ammonia production, B., 903.
- separation of the constituents of coal gas by condensation in stages, B., 1010.
- Thauss, A. See Gen. Aniline Works, Ind., and I. G. Farbenind. A.-G.
- Thayer, L. A., colorimetric determination of silica in the presence of phosphates and iron, A., 1145.
- Thayer, S. See Doisy, E. A., and Veler, C. D.
- Thaysen, T. E. H. See Norgaard, E.
- Theis, E. R., astringency. I. Method of measuring astringency, A., 1072.
- effect of post-mortem action on the nitrogen distribution of animal skin, B., 522.
- biochemistry of soaking and liming [of animal skins]. V. Effect of various acids on the diffusion of coagulable proteins from animal skin, B., 627.
- Theis, E. R., Long, J. S., and Beal, G. F., drying oils. XIII. Changes in linseed oil, lipase, and other constituents of the flax seed as it matures (1929), B., 825.
- Theis, E. R., Long, J. S., and Brown, C. E., drying oils. XII. Changes in linseed oil, lipase, and other constituents of the flax seed as it matures, B., 109.
- Theis, E. R., and Miller, J. M., biochemistry of soaking and liming [of animal skins]. IV. Influence of gaseous environment on liming, B., 252.
- Theis, E. R., and Neville, H. A., hydration of animal skin by the volume-change method. II. Effect of cure on hydration. III. Effect of temperature and time period upon hydration of skin during soaking and liming, B., 339.
- Theis, E. R. See also Neville, H. A., and Ullmann, H. M.
- Theisz, E. See Lányi, B.
- Thelen, J. S. See Brit. Thomson-Houston Co., Ltd.
- Thelen, R. See Philippi, E.
- Theorell, H., lipins of blood-plasma, A., 1200.
- Thermatomic Carbon Co., Spear, E. B., and Moore, R. L., manufacture of rubber composition [and carbon black therefor], (P.), B., 626.
- Théry, R., [fuel shut-off device for] furnaces heated by oil burners, (P.), B., 94.
- Thesen, A., and Thesen, G., roasting furnace, (P.), B., 196.
- Thesen, G. See Thesen, A.
- Thews, E. R., silver-cadmium alloys, A., 1245.
- utility of the platinum metals in chemical industry, B., 616.
- Thews, K. B., and Carlitz, J. S., [inhibitor for use in the pickling] treatment of iron or steel, (P.), B., 1076.
- Thews, R., refining of tin, B., 912.
- Thibaud, J., reflexion of long wave-length X-rays at a plane mirror, A., 512.
- fine structure of α -radiation, A., 1495.
- Thibaud, J., and La Tour, F. D., polymorphism of crystals and microcrystalline orientations of fatty acids as a function of temperature, A., 740.
- α - and β -crystals of fatty acids, A., 1100.
- Thibaud, J., and Trillat, J. J., effect of filtration of general radiation on the X-ray diagrams of liquids; coefficients of absorption, A., 4.
- diffraction of X-rays in various substances, A., 19.
- scattering of X-radiation in liquids and other substances; effect of eliminating stray radiation; absorption coefficients of liquid fatty acids, A., 843.
- diffraction of X-rays in liquids and different substances; effects of filtration of the general radiation; coefficients of absorption of liquid acids, A., 1242.
- Thiberge, P. L. A., apparatus for mixing and emulsifying liquids, (P.), B., 971.
- Thiberville, J., recovery of rubber and textile material from rubber tyres, (P.), B., 205.
- Thiecke, J., Minimax A.-G., and Deutsche Pyrotechnische Fabriken A.-G., [self]-combustible mixture and its preparation, (P.), B., 796*.
- Thiecke, J. See also Deuts. Pyrotechn. Fabr.
- Thiel, A., at. wt. tables and chemical analysis, A., 1232.
- possible yellow content of the acidic, red solutions of methyl-yellow, A., 1573.
- Thiel, A., and Schulz, G., protected hydrogen electrode, A., 1009.
- Thiel, E. See I. G. Farbenind. A.-G., and Sajitz, R.
- Thiele, E. See Ladenburg, R.
- Thiele, H., graphite and graphitic acid, A., 875.
- Thiele, H. See also Tammann, G.
- Thielepape, E., and Meier, P., determination of marc in beets by alcoholic extraction after limited aqueous digestion, B., 210.
- Thieme, A., suitability of pure aluminium vessels for culinary purposes, B., 263.
- Thiery, L., influence of nickel and of chromium on the properties of cast iron, B., 1068.
- Thiess, K. See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
- Thiessen, G. W. See Raiford, L. C.
- Thiessen, P. A., and Köppen, R., hydrates of ferric oxide of definite composition, A., 559.
- Thiessen, P. A., and Koerner, O., higher and lower silicic acids of definite composition, A., 720.
- silicic acids of definite composition; (isolation, p - t and t - x diagrams), A., 720.
- ferric ethoxide, A., 1270.
- Thilenius, R., and Holzmann, H., visual method for the measurement of minute changes in length and application to the determination of coefficients of expansion of glasses and ceramic materials, A., 885.
- Thilo, E., solutions of calcium phosphates in sulphurous acid. I. Behaviour towards nitrogen of solutions of calcium phosphates in sulphurous acid, A., 1138.

- Thilo, *H.*, and Friedrich, *K.*, compounds of nickel, cobalt, and copper which contain the *O*-monomethyl ether of diacetyl-dioxime, A., 195.
- Thilo, *B.* See also Pringsheim, *H.*, and Rabinovitch, *E.*
- Thimann, *K. V.*, gelatin. XI. Diamino-nitrogen of gelatin, A., 939.
- precipitation of the basic amino-acids of proteins with phosphotungstic acid, A., 939.
- Thimann, *K. V.*, and Page, *A. B.*, chemical change in gelatin resulting from the method of storage, A., 1458.
- Thimann, *M.* See Bekk & Kaulen Chem. Fabr. G.m.b.H.
- Thin, *R. G.*, examination of china clay [for grit], B., 767.
- Thiollet, *R.*, and Martin, *G.*, rational classification of the principal accelerators of vulcanisation [of rubber]. II., B., 205.
- Thiriet, *A.*, extraction of cellulose, (P.), B., 553.
- Thivolle, *L.* See Fontès, *G.*
- Thode, *C.* See I. G. Farbenind. A.-G.
- Thole, *F. B.*, Card, *S. T.*, and Anglo-Persian Oil Co., Ltd., purification of liquid hydrocarbons, (P.), B., 1057*.
- Thole, *P. B.* See also Norris, *W. S.*
- Thoma, *E.*, and Bek, *E. G.*, soldering of chain and ring-mesh fabrics, (P.), B., 150.
- Thoma, *E.* See also Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Thomas, *A. R.*, absorption of resonance radiation in mercury vapour, A., 970.
- Thomas, *A. R.* See also Felsing, *W. A.*
- Thomas, *A. W.*, and Hamburger, (*Miss*) *E. R.*, ferric oxybromide hydrosols, A., 412.
- Thomas, *A. W.*, and Whitehead, *T. H.*, effect of sulphate and chloride ions on solutions of aluminium salts, A., 698.
- Thomas, *B. H.* See Steenbock, *H.*
- Thomas, *C. H.*, and Duffendack, *O. S.*, anode spots and their relations to the absorption and emission of gases by the electrodes of a Geissler discharge, A., 271.
- Thomas, *C. T.*, and Blum, *W.*, production of electrolytic iron printing plates, B., 718.
- Thomas, *E.*, and Evans, *E. J.*, isotope effect in neon lines, A., 1084.
- Thomas, *E. B.* See Brit. Celanese, Ltd.
- Thomas, *E. M.* See Schryver, *S. B.*
- Thomas, *H.*, and Sun Oil Co., heat exchanger, (P.), B., 398.
- Thomas, *H.* See also Pew, *A. E., jun.*
- Thomas, *H. A.* See Haworth, *W. N.*
- Thomas, *J.*, Drescher, *H. A. E.*, and Scottish Dyes, Ltd., dye intermediate from halogenated [*o*-]benzoylbenzoic acids, (P.), B., 1103*.
- Thomas, *J.*, Fairweather, *D. A. W.*, and Scottish Dyes, Ltd., dye intermediates [alkyl ethers of leuco-acylaminoanthraquinones], (P.), B., 809.
- Thomas, *J.*, Hereward, *H. W.*, and Scottish Dyes, Ltd., production of hydroxyanthraquinones, (P.), B., 276*.
- Thomas, *J.* See also Barnes, *R. S.*, Dandridge, *A. G.*, Drescher, *H. A. E.*, Duckworth, *S. W.*, Dunworth, *J. F.*, Fairweather, *D. A. W.*, Hooley, *L. J.*, Loveluck, *R. J.*, Smith, *William*, Tonkin, *R.*, Wilson, *J. S.*, Woodcock, *W. G.*, and Wylam, *B.*
- Thomas, *J. C.*, Bowden, *S. T.*, and Jones, *W. J.*, reduction of triphenylhalogenomethanes, A., 589.
- Thomas, *J. E.*, and Chicago White Lead & Oil Co., protective coating, (P.), B., 157.
- Thomas, *P.*, structure of jellies, A., 291.
- Thomas, *P.*, and Sibi, *M.*, structure of jellies. II., A., 1117, 1369.
- Thomas, *R. W.* See Schuette, *H. A.*
- Thomas, *S. B.* See Huffman, *H. M.*, and Parks, *G. S.*
- Thomas, *W.*, balanced fertilisers and Liebig's law of the minimum, B., 386.
- Thomas, *W. G.* See Bell, *W. R. G.*
- Thomas, *W. N.*, use of calcium chloride or sodium chloride as a protection for mortar or concrete against frost, B., 191.
- Thompson, *A. G.* See Fearon, *W. R.*
- Thompson, *A. R., jun.*, and Röhm & Haas Co., application of vat dyes to textile fibres, (P.), B., 1062.
- Thompson, *A. P.* See Gen. Chem. Co.
- Thompson, *E. J.* See Thompson & Co.'s Idolice Specialities, Ltd., II.
- Thompson, *F. W.*, electrodes for electric heat-treatment of metallic articles, (P.), B., 428.
- method and means for electrically heating metals, (P.), B., 670.
- Thompson, *G. W.*, and National Lead Co., treating lead alloys, (P.), B., 333.
- Thompson, *H. A.*, and Swinney Bros., Ltd., filtering or similar devices, (P.), B., 539*.
- Thompson, *H. C.* See Gen. Electric Co.
- Thompson, *H. H.* See Finch, *G. I.*
- Thompson, *H. W.*, non-stationary explosion of carbon disulphide vapour with oxygen, A., 1001.
- Thompson, *J. G.*, Krase, *H. J.*, and Clark, *K. G.*, resistance of metals to the system urea-water-ammonium carbamate, B., 822.
- Thompson, *J. H.*, artificial stone compositions, cements, etc., (P.), B., 770.
- Thompson, *J. J.*, and Oakdale, *U. O.*, general method for determination of halogens in organic compounds, A., 799, 1303.
- Thompson, *J. J.* See also Willard, *H. H.*
- Thompson, *J. S.*, motion of slow positive ions in gases, A., 974.
- Thompson, *J. W.*, decoration of glazed tiles, B., 714.
- Thompson, *L. A.*, making cheese, (P.), B., 791.
- Thompson, *L. F.*, [domestic] apparatus for [electrically] heating liquids, (P.), B., 1136.
- Thompson, *M. de K.*, model to explain the mechanism of electrolysis, A., 730.
- Thompson, *M. R.*, pharmacology of ergot: biological assay and standardisation. VI. Preparation of purified fluid extract of ergot: pharmacological studies, B., 539.
- pharmacology of ergot: biological assay and standardisation. VII. Changes occurring in crude ergot and fluid extract of ergot, U.S.P. X, during storage. VIII. Bio-assay standards for ergot and its preparations, B., 881.
- pharmacology of ergot: biological assay and standardisation. IX. Summary with conclusions and recommendations, B., 965.
- Thompson, *M. R.* See also McClosky, *W. T.*
- Thompson, *M. S.* See Du Pont de Nemours & Co., *E. I.*
- Thompson, *P. K.* See Thompson, *W. O.*
- Thompson, *R. D.*, and Mills, *G. C.*, electrodes or welding rods for use in the process of electrically welding or depositing metals, (P.), B., 994.
- Thompson, *R. G.* See Ray, *K. W.*
- Thompson, *R. H.* See Rule, *H. G.*
- Thompson, *R. J.*, metal polish, (P.), B., 618.
- Thompson, *R. R.* See Bingham, *E. C.*
- Thompson, *T. G.*, Miller, *R. C.*, Hitchings, *G. H.*, and Todd, *S. P.*, sea-water near Puget Sound Biological Station during the summer of 1927, A., 731, 1014.
- Thompson, *T. G.*, and Wright, *C. C.*, ionic ratios in the waters of the North Pacific Ocean, A., 569.
- Thompson, *T. G.* See also Johnson, *M. W.*
- Thompson, *W. C.* See Poth, *E. J.*
- Thompson, *W. O.*, and Alexander, *B.*, exophthalmic goitre; protein content of the cerebrospinal fluid, A., 366.
- Thompson, *W. O.*, Cohen, *A. C.*, Thompson, *P. K.*, Thorp, *E. G.*, and Brailey, *A. G.*, range of effective iodine dosage in exophthalmic goitre. III. Effect on basal metabolism of daily administration of iodine, A., 635.
- Thompson, *W. O.*, Thorp, *E. G.*, Thompson, *P. K.*, and Cohen, *A. C.*, range of effective iodine dosage in exophthalmic goitre. II. Effect on basal metabolism of daily administration of iodine, A., 635.
- Thompson, *W. S.* See Peterson, *W. H.*
- Thompson & Co.'s Idolice Specialities, Ltd., *H.*, and Thompson, *E. J.*, food preparations; [custard tablets], (P.), B., 119.
- Thoms, *W.*, pharmacological testing of brucine derivatives, A., 370.
- Thoms, *H.*, and Dambergis, *C.*, constituents of the white dittany (*Dictamnus albus*), A., 383.
- Thoms, *H.*, and Dobke, *W.*, ascaridole, A., 478.
- Thoms, *H.*, and Gonsin, *J.*, brucine, A., 229.
- Thoms, *H.*, and Soltner, *K.*, condensation of pulegone with aldehydes, A., 610.
- Thomsen, *A. M.*, manufacture of paper pulp, (P.), B., 1105.
- Thomsen, *C.* See I. G. Farbenind. A.-G.
- Thomson, *C. E.* See Thomson, *J.*
- Thomson, *D.*, treatment of [edible] animal matter, (P.), B., 684*.
- Thomson, *D. F.* See Kellaway, *C. H.*
- Thomson, *E.* See General Electric Co.
- Thomson, *G. M.*, and Canada Gypsum & Alabastine, Ltd., preparation of cellular building material, (P.), B., 511*.
- Thomson, *G. P.*, electron diffraction by "forbidden" planes, A., 1081.
- analysis of surface layers by electron diffraction, A., 1082.

- Thomson, *G. P.*, and Fraser, *C. G.*, camera for electron diffraction, A., 1082.
- Thomson, *J.*, arc and spark radiation from hydrogen in the extreme ultra-violet, A., 123.
- Thomson, *J.*, and Thomson, *C. E.*, separation of wool fat, etc., from wool-scouring wash, (P.), B., 368.
- Thomson, *J.*, Thomson, *C. E.*, and Winsloe, *J.*, machine for separating solids [and wool-fat] from liquids [wool-scouring wash], (P.), B., 1147.
- Thomson, *J. A.*, heating of liquids, using the sun's rays for the purpose, (P.), B., 444.
- Thomson, (Sir) *J. J.*, electronic waves, A., 131.
- relation of electronic waves to light quanta and to Planck's law, A., 973.
- Thomson, *T.* See Stevens, *T. S.*
- Thon, *N.*, possible multiplicity of electrokinetic potentials, A., 696.
- Thor, *C. J.* See Traub, *H. P.*
- Thor, *C. J. B.* See Holmes, *H. N.*
- Thoreau, *J.*, crystallographic properties of α -methylbutenoic acid amides, A., 1353.
- Thorén, *F.*, catalytic action of platinum, A., 1132.
- Thorne, *G.* See Liverpool Rubber Co., Ltd.
- Thorne, *S. L.*, and Tilbury Contracting & Dredging Co., Ltd., apparatus for (A) drying or cooling, (B, C) treatment, of [crushed] stone, slag, etc., for production of road-paving materials, (P.), B., 375.
- Thornhill, *C. J. M.* See Henbrey, *H. J.*
- Thornley, *S.* See Gulland, *J. M.*
- Thornton, *H. G.*, and Gray, *P. H. H.*, fluctuations of bacterial numbers and nitrate content of field soils, B., 875.
- Thornton, *H. R.*, and Hastings, *E. G.*, oxidation-reduction in milk. I. Oxidation-reduction potentials and the mechanism of reduction. II. Choice of an indicator for the reduction test; reduction of Janus-green-B in milk, B., 391.
- oxidation-reduction in milk; methyleuc-blue reduction test, B., 1044.
- Thornton, *R. P.* See Singleton, *G.*
- Thornton, *W. M.*, propagation of flame in gaseous explosions, A., 708.
- Thornton, *W. M., jun.*, and Roseman, *R.*, use of potassium titanium oxalate for the preparation of a standard titanium solution for colorimetry, A., 1009.
- Thornton, *W. N.* See Crew, *W. H.*
- Thorp, *B. H.*, explosion of hydrogen-air mixtures in a closed vessel. I. and II., A., 166.
- Thorp, *E. G.* See Thompson, *W. O.*
- Thorp, *J. S.*, [calculation of tanks for high temperature and pressure], B., 305.
- Thorpe, *W. G.* See Dunlop Rubber Co., Ltd.
- Thorpe, *W. V.*, isolation of histamine from the heart, A., 945.
- Thorsell, *C. T.* See Kali-Ind. A.-G.
- Thorvaldson, *T.*, and Brown, *W. G.*, thermochemistry of the compounds in the system $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. II. Heat of solution of calcium hydroxide in hydrochloric acid, A., 420.
- Thorvaldson, *T.*, Brown, *W. G.*, and Peaker, *C. R.*, thermochemistry of compounds in the system $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. III. Heat of hydration of calcium oxide, A., 544.
- thermochemistry of compounds in the system $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. IV. Heat of solution of tricalcium aluminate and its hydrates in hydrochloric acid, A., 1524.
- Thorvaldson, *T.*, and Grace, *N. S.*, hydration of aluminates of calcium. I. New crystalline form of tricalcium aluminate, A., 436.
- Thorvaldson, *T.*, Grace, *N. S.*, and Vigfusson, *V. A.*, hydration of aluminates of calcium. II. Hydration products of tricalcium aluminate, A., 162.
- Thorvaldson, *T.*, Vigfusson, *V. A.*, and Wolochow, *D.*, action of sulphates on Portland cement. I. Use of the expansion method in studying their action on Portland cement mortar and concrete, B., 104.
- action of sulphates on Portland cement. II. Steam-curing of Portland cement mortar and concrete as a remedy for sulphate (alkali) action. III. Effect of addition of silica gel to Portland cement mortars on their resistance to sulphate action, B., 146.
- Threlfall, *R.*, manufacture of activated carbon, (P.), B., 1057*.
- Threlfall, *R. E.*, [refractory floating rings for use in] glass manufacture, (P.), B., 714.
- Throne, *B.* See Van Dyck, *L. S.*
- Thrun, *W. E.*, use of protective colloids in colorimetric determination of certain metals as lakes of dyes, B., 383.
- Thum, *A.*, and Wiss, *W.*, dynamic strengthening and capacity for overloading of steels, B., 991.
- Thun, *R.*, reaction and lime question [in soils], B., 386.
- examination of the Neubauer method and its application to easily assimilable nitrogen [of soils], B., 733.
- Thune, *S.*, and Heyerdahl, *E. F.*, production of oils and fats from animal [fish] material, (P.), B., 203.
- Thune, *S.* See also Holter, *K.*
- Thurber, *F. H.*, and Johnson, *C. H.*, effect of heat on d - α -pinene, A., 478.
- Thurm, *R.*, Schmierer, *E.*, and Baker Perkins Co., Inc., machine for dissolving [cellulose] xanthate, (P.), B., 553, 1146.
- Thurman, *B. H.*, and Gold Dust Corporation, treatment of linseed oil, (P.), B., 1037.
- Thurman, *B. H.* See also Hamilton, *J. C.*
- Thwaite, *C. B.*, [low-temperature] distillation of fuel, (P.), B., 497.
- Tian, *A.*, and Silvarich, decomposition of perchlorates by alkali nitrates, A., 1257.
- Tiber, *A. M.* See Ralli, *E. P.*
- Ticharich, *N.* See Pacsu, *N.*
- Tichý, *J.*, low-temperature tars, B., 496.
- Tidmore, *J. W.*, phosphate studies in culture solutions, B., 877.
- Tiede, *E.*, and Choinse, *H.*, nature and chemical activity of active nitrogen, A., 1139.
- Tiedemann, *E.* See Nagel, *W.*
- Tiefbau- & Kalteindustrie Akt.-Ges., Siemens-Bauunion Ges. m. b. H., and Joosten, *H.*, solidification of sandy masses permeable by water, (P.), B., 146.
- Tiegs, *E.*, sulphur content of leaves, A., 824.
- Tiemann, stimulation of the respiratory centre by salts of lower fatty acids, A., 369.
- Tiemann, *F.* See Rigler, *R.*
- Tietz, *E. B.* See Tashiro, *S.*
- Tietz, *E. L.* See Bowen, *E. J.*
- Tietze, *E.* See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Tietze, *W.* See Ladenburg, *R.*, and Orlik, *W.*
- Tiffeneau, *M.*, and Lévy, (Mlle.) *Jeanne*, affinity of the piperonyl radical, A., 1041.
- Tiffeneau, *M.*, Lévy, (Mlle.) *Jeanne*, and Ditz, *E.*, pairs of stereoisomeric amino-alcohols; separate preparation of each isomeride, A., 470.
- Tift, *T. de C.*, Vobach, *A. C.*, and Sinclair Refining Co., refining of hydrocarbons, (P.), B., 48.
- Tift, *T. de C.* See also Herthel, *E. C.*
- Tigerschild, *K. M.*, non-corrodible alloys of iron and articles produced therefrom, (P.), B., 913.
- Tijmstra, *S.*, refining of [hydrocarbon] oils, (P.), B., 231.
- Tikhomirov, *A. V.* See Shukov, *I. I.*
- Tikhomirov, *V. I.*, and Zhuse, *V. P.*, determination of sp. heat of crude oil products at elevated temperatures, B., 131.
- Tikhomirova, *M. M.* See Gerr, *V. F.*
- Tikkanen, *E.* See Toivonen, *N. J.*
- Tilbury Contracting & Dredging Co., Ltd. See Thorne, *S. L.*
- Tilden, *J. E.*, phycological examination of fossil red salt from three localities in the southern States, A., 570.
- Tilitschéev, *M.*, cracking of Ural crude oil, B., 595.
- Tilitschéev, *M.* See also Sachanov, *A.*
- Tillberg, *E. W.* See Lundin, *E. A.*
- Tiller, *D. M.*, and Ferree, *W. W.*, treatment [quenching] of metals, (P.), B., 17.
- Tilley, *C. E.* [with Hey, *M. H.*], scawtite, a new mineral from Scawt Hill, Co. Antrim, A., 569.
- Tilley, *F. W.*, and Chapin, *R. M.*, germicidal efficiency of chlorine and the N -chloro-derivatives of ammonia, methylamine, and glycine against anthrax spores, B., 688.
- Tilley, *G. S.*, recovery of vanadium from complex solutions, (P.), B., 661.
- Tilley, *G. S.*, Dam, *M. E.*, and Dam, *E. S.*, preparation of alumina and potassium sulphate, (P.), B., 324.
- Tillmans, *J.*, lime-aggressive and rust-prevention inhibiting carbonic acid in natural water, B., 38.
- Tillmans, *J.*, Hirsch, *P.*, and Stoppel, *F.*, determination of tyrosine and tryptophan in proteins, A., 489.
- Tillmans, *J.*, and Philippi, *K.*, carbohydrate content of the chief proteins of foodstuffs and a colorimetric method for the determination of nitrogen-free sugar in protein, A., 108.

- Tillmans, J., and Weill, E., determination of lactic acid in wine by "step" titration, B., 31.
- Tilloy, C., and Davezie, M. B., [fixing the plates in] centrifugal mills, (P.), B., 1137.
- Tilt, J., basal metabolism of young college women in Florida, A., 811.
- Tilt, J., and Winfield, M., composition of West Indian seedling avocados, B., 34.
- Tilton, L. W., and Tool, A. Q., optical heterogeneity of a fused quartz disc, A., 136.
- Timmermans, J., temperature of fusion of organic compounds. XII. Alternation phenomena, A., 57.
- stereochemical researches: principle of privileged structure, A., 668.
- freezing of solutions as a method of investigation in pure chemistry. III. The f.p. curves of mixtures of optically active substances of the camphor group, A., 1121.
- Timmermans, J., and Hennaut-Roland, (Mme.), isomyl compounds, A., 59.
- Timmis, G. M. See Smith, Sydney.
- Timofeeva, A., and Steppuhn, O., intracellular synthesis of protein, A., 956.
- Timon-David, J., insect oils and fats, A., 804.
- Timson, S. D., sunn hemp, B., 161.
- Tinker, F., and Sinclair Refining Co., distillation of crude [mineral] oils, (P.), B., 1102*.
- Tinling, J. A., production of borneol and isoborneol, (P.), B., 276.
- Tipson, R. S. See Hibbert, H.
- Tischbirek, H. See Meyer, Julius.
- Tischchenko, D., condensation of acetone with sulphuric acid, A., 1565.
- Tischchenko, I., and Tchefranov, V., treatment of raw sugar-beet shavings, (P.), B., 1085.
- Tischchenko, V. E., and Permyakova, V. M., purification of commercial hydrochloric acid, B., 1107.
- Tissage Dewitte-Lietaer, apparatus for bleaching and dyeing, etc., (P.), B., 815.
- Tisseyre, L. D. J., [heating elements for crucible] electric furnaces, (P.), B., 774.
- Titajev, A. A., and Summ, B. R., action of thyroxine and acetyl-thyroxine on the metamorphosis of the axolotl, A., 962.
- Titani, T., viscosity of vapours of organic compounds. I. and II., A., 283, 679.
- Titania Corporation. See Bichowsky, F. von, and Fitzgerald, F. A. J.
- Titanium Pigment Co., Inc., [titanium] paints, (P.), B., 779.
- Titanium Pigment Co., Inc., and Ryan, L. W., manufacture of titanium compounds [white oxide pigment], (P.), B., 905.
- Titanium Pigment Co., Inc. See also Doerinkel, F.
- Titecomb, J. W., Cobb, E. W., Crowell, M. F., and McCay, C. M., relative value of plant and animal by-products as feed for brook-trout and the basic nutritional requirements of trout, A., 1615.
- Titéica, R. See Duclaux, J.
- Titherington, R. J. See Proskouriakoff, A.
- Titlestad, N. See Hechenbleikner, I.
- Tittsler, R. P., reduction of nitrates to nitrites by *Salmonella pullorum* and *S. gallinarum*, B., 680.
- Titus, A. C. See Bonner, W. D.
- Titus, A. S., Elkins, H. B., Finn, H. G., Fairhall, L. T., and Drinker, C. K., contamination of food cooked or stored in contact with nickel-chromium-iron alloys, B., 1130.
- Titus, R. N., and Gray, H. L., chemical micrurgy, A., 1550.
- Titus, R. R. See Bengel, F. H.
- Titz, I. N. See Zelinski, N. D.
- Tiukov, D. See Chrzascz, T.
- Tiulin, A. T., soil structure. III. Influence of soil swelling on the determination of capillary and non-capillary porosity by means of saturation of soil with water, B., 574.
- Tiulin, A. T., and Wosbutskaia, A. E., application of lime and phosphates to podsol soils, B., 575.
- Tiulpanova-Mosevich, M. V., denitrification in inorganic media, A., 1622.
- Tiutiunnikov, B., determination of the hardness of soaps, B., 1118.
- Tiutiunnikov, B., and Kasyanov, N., lathering power of soap solutions, B., 1118.
- Tiutiunnikova, A. B. See Charmandarian, M. O.
- Tixier, L., determination of uric acid [in urine], A., 806.
- determination of urobilin in urine, A., 1205.
- Tjaschelov. See Rozanov, N. A.
- Tjoflat, G. B. See Westinghouse Electric & Manuf. Co.
- Tobacco By-products & Chemical Corporation. See Arnold, R. B.
- Tobin, E. See Reimer, M.
- Tocco, G., and Nyssens, A., method of analysis of cellulose formate [or other formic esters] by oxidation, B., 607.
- Tocco, L., [electrical] activation of chemical reactions, (P.), B., 824.
- Todd, A. R. See Patterson, T. S.
- Todd, E. See Seyer, W. F.
- Todd, J. P., stabilisation and fermentation of belladonna leaves, B., 263.
- relationship between enzymes and alkaloids of *Atropa belladonna*, L., B., 531.
- Todd, S. P. See Thompson, T. G.
- Todd, S. S. See Parks, G. S.
- Tödt, P., local current theory of corrosion and passivity, A., 1125.
- direct indication of metal corrosion by current-density measurements and its practical significance, B., 329.
- continuous indication of the content of dissolved oxygen [of salt solutions] and of the protective action of sodium hydroxide solution [on the rusting of iron] by current measurements, B., 329.
- effect of depolarisation on speed of rusting, B., 376.
- Tödt, F., and Weidenhagen, R., enzymic action in oxido-reduction systems and its relation to non-enzymic catalysis in aqueous solutions, A., 1064.
- Tödt, F. See also Cassel, H., and Spengler, O.
- Toeldte, W., testing the permeability of "tiller" films [for automobile finishing], B., 570.
- Toenniessen, E., and Brinkmann, E., oxidative breakdown of carbohydrates in mammalian muscle, and especially the formation of succinic from pyruvic acid, A., 637.
- Toepfer, E. W., and Boutwell, P. W., application of Burgess-Parr sulphur photometer to rapid determination of sulphur in foods and biological material, B., 393.
- Toepfer, H. See Freudenberg, K.
- Toffoli, C. See Oddo, B.
- Toischer, K. See Hüttig, G. F.
- Toivonen, N. J., and Tikkanen, E., catalytic dehydrogenation of fenchyl alcohol by aluminium phosphate; a new series of terpene and camphor compounds, A., 348.
- Tokmanov, I., decolorising efficiency of Russian and foreign clays, B., 595.
- Fergana ceresin, B., 596.
- Tokyo Gomu Kabushiki Kaisha, production of floating rubber resistant to mineral oil, (P.), B., 521.
- Tolansky, S., fine structure in the singlet series of mercury, A., 1330.
- intensity modifications in the spectrum of mercury, A., 1330.
- Tolch, N. A., and Perrott, G. St. J., dynamites: their repulsive strength, rate of detonation, and poisonous gases evolved, B., 395.
- Tolhurst Machine Works, Inc. See Bryson, T. A., and McKeon, J. J.
- Tolkatschov, S. A., and Portnov, M. A., analysis of red phosphorus, B., 1108.
- Tolksdorf, S. See Cohn, W. M.
- Tollert, H., determination of potassium as potassium perchlenate, A., 1392.
- Tolhoeczo, S., general equation for the velocity of simple adsorption, A., 989.
- Tolman, C. P., and Petroleum Conversion Corporation, method of distillation: [cracking of hydrocarbons], (P.), B., 133.
- Tolman, R. C. See McRae, D. B., and Ramsperger, H. C.
- Tolmatschev, P. See Chlopov, I.
- Tolmatscheva, T. A. See Schtschukarev, S. A.
- Tolski, P. See Jakimov, P.
- Tomaschek, R., phosphorescence, A., 274.
- chemical combination and the line emission of solid bodies, A., 1331.
- Tomaszewski, J. See Galecki, A.
- Tomaszewski, S. See Pianhauser, J.
- Tomesik, E., some compounds of the phenols with quinine and cinchonine, A., 486.
- Tomczyński, W. See Kahl, E.
- Tomeo, M., and Garcia-Viana, J., analytical data of Okume resin, B., 570.
- Tomeo, M. See also Garcia-Viana, J.

- Tomíček, O., and Janský, A., argentometric studies. II. Determination of halides in presence of sulphites, A., 50.
determination of iodides and bromides in chlorides, A., 51.
argentometric studies. III. Determination of bromides and iodides in the presence of a large excess of chlorides, A., 310.
- Tomii, R., Okabe, E., and Takeda, S., potentiometric determination of copper without the use of a calomel electrode, and the solubility product of copper hydroxide, A., 564.
- Tomioaka, T., liver function and blood-catalase. I.—III, A., 812.
- Tomita, M., and Karashima, J., hydroxyamino-compounds which show the biuret reaction. V. Synthesis of isoserylglycine, A., 585.
- Tomita, T. See Kitagawa, M.
- Tomiyama, T. See Kitagawa, M., and Yamagawa, M.
- Tomkins, R. G., and Woodman, R. M., stalk treatment of fruit and vegetables for prevention of stalk rot, with special reference to bananas, B., 965.
- Tomlinson, G. A., cohesion of quartz fibres, A., 1515.
- Tomlinson, J. N. See Tomlinsons (Rochdale), Ltd.
- Tomlinsons (Rochdale), Ltd., and Tomlinson, J. N. drying and conditioning of household soap [for stamping], (P.), B., 468.
drying and conditioning of household soap, (P.), B., 518.
exclusion of unfiltered air from tunnel and similar drying apparatus, (P.), B., 1134.
- Tomoda, Y., production of glycerin by fermentation. VII. Velocity of fermentation in presence of sulphite. VIII. Formation of β -butylene glycol and acetic acid during glycerin fermentation in presence of sulphite, B., 299.
production of glycerin by fermentation. IX. Separation of glycerin from fermented waste molasses, B., 787.
- Tomoda, Y., and Kochi, H., efficiency of alcoholic fermentation of sugar, B., 786.
- Tomoda, Y., and Wadano, M., nitrogen distribution in the yeast proteins produced from ammonium sulphate as sole source of nitrogen, A., 642.
- Tompkins, P. W., sardine oil colour standards, B., 621.
- Tompsett, S. L., determination of blood-sugar. I. Reduction of alkaline copper reagents by dextrose and other substances. II. Effect of different deproteinising agents on the determination of blood-sugar, A., 1306.
- Tomula, E. S., colorimetric determination of cobalt alone and in presence of nickel, A., 565.
- Tomula, E. S. See also Puranen, U. H.
- Tongberg, C. O. See Conant, J. B.
- Tongue, H., high-pressure chemical engineering equipment of the Chemical Research Laboratory, Teddington, B., 489.
- Tonkin, R., Wilson, J. S., Thomas, J., and Scottish Dyes, Ltd., [manufacture of dry finely-divided vat] dyes [of the anthraquinone series], (P.), B., 365.
- Tonn, W. See Vogel, R.
- Tonnet, J. See Chauvenet, E.
- Tonney, F. O., and Noble, R. E., relation of direct *B. coli* and *B. aerogenes* counts to sources of [faecal] pollution, B., 642.
- Tontet, G. V., tanks for transport of volatile liquids, (P.), B., 400.
- Toogood, H. J. See Glover, W. T.
- Tool, A. Q., Lloyd, D. B., and Merritt, G. E., dimensional changes caused in glass by heating cycles, B., 1152.
- Tool, A. Q. See also Tilton, L. W.
- Tools Co., Ltd., L. W. See Ball, F. L.
- Toone, G. C. See Underwood, H. W., jun.
- Toop, F. H. See Dunlop Rubber Co., Ltd.
- Tootal Broadhurst Lee Co., Ltd. See Foulds, R. P.
- Topley, B., homogeneous isothermal reaction $2\text{CO} + \text{O}_2 = 2\text{CO}_2$ in the presence of water vapour, A., 547.
- Topley, B. See also Black, H. K., and Spencer, W. D.
- Toporescu, E., potential of metals in pure liquids, A., 422.
- Topouzada, H. T. See Scheibler, H.
- Toropov, S. A. See Schilov, N. A.
- Torrance, E. G. See Fry, E. G.
- Torres, C., Capuchino, A. S., and Socias, L., determination of the acetyl group in acetylated derivatives of polyhydric phenols: conductometric determination, A., 1605.
- Torres, C., and Socias, L., preparation of monochloroacetic acid; hydrolysis of trichloroethylene, A., 1020.
- Torres, M. See Ponzio, G.
- Torrey, G. G. See Booth, H. S.
- Torrey, J. C., Kahn, M. C., and Salinger, M. H., influence of hydrogen-ion concentration on the sporulation of *B. welchii*, A., 1479.
- Torsion Balance Co. See Seyter, W. C.
- Tory, H. M., protein content as a factor in grading wheat, B., 36.
- Toscani, F. See McClellan, W. S.
- Totzek, F., and Koppers Akt.-Ges., II., regenerative coke ovens, (P.), B., 404.
- Tougarinov, B., determination of nickel, cobalt, and zinc by rapid electrolysis without mechanical agitation of the electrolyte, A., 1394.
- Touplain, F. See Bordas, F.
- Toussaint, G. See Ohle, H.
- Tovarnitzki, V. I., and Sergeenko, P. S., volumetric determination of potassium with sodium lead cobaltinitrite, A., 52.
- Tovarnitzki, V. I., and Slezak, K. J., volumetric determination of potassium with sodium hydrogen tartrate, A., 311.
- Tovborg-Jensen, S., determination of the lime requirement of soils and the lime absorption in acid humus soils, B., 256.
- Towarzystwo Zakładów Chemicznych "Śrem" Spółka Akcyjna. See Zathy, J.
- Tower, C. H. See Sawyer, C. B.
- Towne, E. B. See Gilman, H.
- Townsend, C. See Governor & Co. of Adventurers of England Trading into Hudson's Bay.
- Townsend, J. S., energies of electrons in gases, A., 973.
- Townsheud, A. S., reaction of the solvent alcohol on dissolved esters in presence of the sodium alkoxide, A., 548.
- Towt, L. V., use of the Mojonier milk tester for the routine determination of vanillin; Towt lead number, B., 438.
- Toxopéus, M. A. B., distribution of bromine in the organism, A., 639.
distribution of bromine in the organism. II. Action of thyroid and pituitary on distribution of bromine, A., 1624.
- Toy, F. C., photo-electric density meter, A., 1265.
quantum theory of photographic exposure, A., 1384.
- Toy, F. C., and Harrison, G. B., photo-conductance phenomena in the silver halides, and the latent photographic image. I. and II., A., 1005.
- Toyabe, Y., conditions affecting the vulcanisation of rubber. IV. Heat reaction during vulcanisation, B., 520.
conditions affecting the vulcanisation of rubber. V. Effect of accelerators on the heat of vulcanisation, B., 1039.
- Toyabe, Y., and Fukunaga, K., conditions affecting the vulcanisation of rubber. I. Heating curves of raw rubber, B., 249.
conditions affecting the vulcanisation of rubber. III. Some properties of rubber against solvents, B., 339.
- Toyabe, Y., Fukunaga, K., and Fukuda, D., conditions affecting the vulcanisation of rubber. II. Special properties of vulcanisation accelerators, B., 249.
- Toyama, Y., and Tsuchiya, T., thiocyanogen value of marine-animal oils and some of their constituents, B., 430.
- Toyne, F. D., and Hunt & Winterbotham, Ltd., proofing of woollen or other cloth, (P.), B., 281.
- Toyohara, Y. See Nomitsu, T.
- Tozer, G. W., vertical retorts, (P.), B., 91.
- Trachtenberg, F. I. See Brodski, A. I.
- Tracy, P. H., and Ruehe, H. A., enzyme activity of ice-cream improvers, B., 346.
- Traegel, A. See Spengler, O.
- Traer, G. W., jun. See Odell, W. W.
- Traetta-Mosca, F., and Venezia, M., presence of a polyhydric alcohol in seeds of *Castanea vesca*, A., 1627.
olive oil. II. Acidity, B., 1162.
substance contained in the "water of vegetation" of olives, B., 1167.
- Traill, D. See Imperial Chem. Industries, Ltd.
- Traill, R. J., McClelland, W. R., and Johnston, J. D., reports of investigations: [Canadian] ore-dressing and metallurgical laboratories; [beneficiation and low-temperature reduction of high-sulphur iron ore and the metallisation of the iron content of ilmenite], B., 1154.
hydrometallurgical treatment of high-grade iron-copper sulphide concentrates, B., 1156.
- Tranin, S. See Irvin, J. C., jun.
- Transcontinental Oil Co. See Slagter, A. J.
- Trantom, W. See Moore & Co., Ltd., C.
- Traub, H. P., and Fraps, G. S., ripening and composition of the Texas magnolia fig, A., 1323.
- Traub, H. P., Thor, C. J., Zeleny, L., and Willaman, J. J., chemical composition of girasole [Jerusalem artichoke] and chicory grown in Minnesota, A., 121.
- Traube, J., and Naugatuck Chemical Co., concentration of rubber latex, (P.), B., 573*.

- Traube, J., Weber, L. J., and Guirini, C., gas-liquid surface tension and liquid-liquid interfacial tension; theories of narcosis and permeability, A., 496.
- Traube, J., and Whang, S. H., viscosity coefficients and surface layers. II., A., 153.
- Traube, J. See also Behren, W. von, and Weber, L. J.
- Traube, W., manufacture of valuable products from carbohydrates, (P.), B., 99.
- Traube, W., Glaubitt, G., and Schenck, V., copper oxide-ethylene-diamine-cellulose, A., 1417.
- theory of alkaline copper solutions and the biuret reaction, A., 1421.
- Traube, W., and Hellriegel, E., production of *N*-monoalkyl derivatives of aminophenols, (P.), B., 276*.
- Traubenberg, H. R. von, recent investigations on canal rays, A., 7.
- Traubenberg, H. R. von, Gebauer, R., and Lewin, G., existence limits of excitation levels of hydrogen atoms in intense electric fields, A., 829.
- Traubenberg, H. R. von. See also Gebauer, R.
- Trautmann, A., and Luy, P., secretion and composition of milk in non-physiological activity of the male mamma, A., 363.
- Trautmann, J., drying, finishing, and improving mass-production articles, (P.), B., 169.
- Trautner, W. See General Aniline Works, Inc., and Grasselli Dyestuff Corp.
- Trautwein, K., and Wassermann, J., fermenting power of yeasts of the first sub-group of *Saccharomyces* (Meyen), Rees, A., 250.
- Trautz, M., sulphide-sulphate reaction, A., 36.
- viscosity, heat conductivity, and diffusion in gas mixtures. VII. Relationships with homogeneous gas reactions, A., 284.
- viscosity, heat conductivity, and diffusion in gas mixtures. X. Whole number relationships of constants and quantum numbers in viscosity of gases, A., 1105.
- Trautz, M., and Binkele, H. E., viscosity, heat conductivity, and diffusion in gas mixtures. VIII. Viscosity of hydrogen, helium, neon, and argon and their binary mixtures, A., 1105.
- Trautz, M., and Gürsching, M., electrical differential method for measuring the specific heat of gases at constant volume. III. Velocity of cooling and temperature conductivity of gases, A., 847.
- Trautz, M., and Kaufmann, F., critique of the electrical differential method of measuring the specific heats of gases at constant volume. IV. Determinations; standardisation with argon, A., 1103.
- Trautz, M., and Kipphan, K., methods of quantitative analysis for nearly pure gases. II., B., 56.
- Trautz, M., Leonhardt, Erich, and Kipphan, K., methods of quantitative analysis for nearly pure gases. III., B., 56.
- Trautz, M., Leonhardt, Erich, and Scheuermann, H., methods of quantitative analysis for nearly pure gases. I., B., 56.
- Trautz, M., and Ludewigs, W., viscosity, heat conductivity, and diffusion in gas mixtures. VI. Viscosity determinations with pure gases by direct measurement and thence those of their mixtures, A., 26.
- Trautz, M., and Ludwig, O., viscosity, heat conductivity, and diffusion in gas mixtures. IX. Knowledge of the concentration function of the diffusion constant of gases, A., 1105.
- Trautz, M., and Zürn, A., electrical differential method for the determination of C_p for gases, A., 1356.
- Trautz, O. R. See Nieder, J. B.
- Travers, A., and Avenet, determination of phenols in waters from coking plants, B., 446.
- determination of total cyanogen in ammoniacal liquor, B., 542.
- determination of thiocyanates in coke-oven liquors, B., 593.
- Travers, A., and Malaprade, L., complex fluoroborates, A., 1261.
- Travers, A., and Sehnoutka, J., hydrated calcium aluminates, A., 872.
- Travers, J. T., and Ohio Sanitary Engineering Corporation, purification of polluted liquids, (P.), B., 688.
- treatment of creamery waste, (P.), B., 791.
- Travers, J. T., Lewis, C. H., Urbain, O. M., and Ohio Sanitary Engineering Corporation, water purification [from phenols, etc.], (P.), B., 884.
- Travers, J. T., Travers, M. E., and Ohio Sanitary Engineering Corporation, production of a balanced environment for fish life, (P.), B., 742.
- Travers, J. T., and Travers-Lewis Process Corporation, removal of odours from gases and air, (P.), B., 534.
- Travers, J. T., Urbain, O. M., and Ohio Sanitary Engineering Corporation, water purification, (P.), B., 884.
- Travers, M. E. See Travers, J. T.
- Travers, M. W., prevention of nuisance from fumes and dust from power stations, B., 644.
- Travers-Lewis Process Corporation. See Travers, J. T.
- Travniček, M. See Rumpf, E.
- Trawinski, F., thermochemical treatment of bauxite with sulphuric acid, (P.), B., 283.
- Traylor Engineering & Manufacturing Co., gyratory crushers, (P.), B., 886.
- Traylor Engineering & Manufacturing Co. See also Bernhard, R.
- Trča, F. See Hlavica, B.
- Treadwell, W. D. [with Bernasconi, E.], electrometric titration of aluminium and magnesium ions in presence of each other, A., 1148.
- Treadwell, W. D., and Wieland, W., hydrates of silicic acid, A., 1537.
- Treiliev, I. A., and Goroschkho, E. A., reaction between bromine and γ -diketones in hydrobromic acid solution, A., 1045, 1188.
- Tréfouel, J. See Fourneau, E., and Soc. des Usines Chim. Rhône-Poulenc.
- Tréfouel, (Mme.) J. See Fourneau, E.
- Treichel, O., process for extinguishing fires, (P.), B., 889*.
- Trelles, R. A., and Ferramola, R., determination of uric acid in blood, A., 630.
- Trelles, R. A. See also Bado, A. A.
- Treloar, A. E., statistical study of collaborative protein determinations, B., 32.
- Tremearne, T. H., large constant-temperature bath containing a removable glass front, A., 1550.
- Tremearne, T. H. See also Bartlett, E. P.
- Trenckmann, B. See Trenckmann, E.
- Trenckmann, E., Trenckmann, B., and Luftschiffbau Zeppelin Ges.m.b.H., composition for impregnating balloon fabrics, (P.), B., 53.
- Trénel, M., electrodialysis and mineral soil acidity, B., 254.
- apparatus for electrometric analysis, (P.), B., 723.
- Trénel, M., and Wunschik, J., chemistry of mineral soil acidity. II. Chemistry of exchange acidity in soils. III., B., 832.
- Trent, W. E., forming smokeless fuel briquettes, (P.), B., 7.
- dry distillation of solid carbonaceous materials, (P.), B., 176.
- apparatus for heat treatment of solid or semi-solid carbonaceous material, (P.), B., 404.
- Trent, W. E. See also Trent Process Corp.
- Trent Process Corporation, production of a fuel from pulverised coal, (P.), B., 90.
- carbonising coal and cracking liquid hydrocarbons, (P.), B., 891.
- cracking of liquid hydrocarbons, (P.), B., 978.
- reduction of iron ores, (P.), B., 994.
- Trent Process Corporation, and Trent, W. E., [tubes for] treatment of hydrocarbons, (P.), B., 47.
- production of metals from their oxide ores, (P.), B., 513.
- heat-treatment of carbonaceous material, (P.), B., 545.
- generation of gases for power development; improving the flowing characteristics of coal, (P.), B., 600*.
- metallurgical furnace, (P.), B., 669.
- apparatus for baking carbonaceous fuel briquettes, (P.), B., 699.
- carbonisation of coal, (P.), B., 753*.
- apparatus for producing metals from their oxide ores, (P.), B., 773*.
- mercury-vapour boilers, (P.), B., 914.
- reduction of iron ores, (P.), B., 1077*.
- Trenzen, C., Schwartz, C., and Hunter, G. G. G., production of lepidolite enamel, (P.), B., 145.
- Trenzen, C. See also Schmelzbasalt-A.-G.
- Treschow, M., cooling of grinding mills, (P.), B., 645.
- Trevaskis, H. See Dunlop Rubber Co., Ltd.
- Trevorton, S., and Central Alloy Steel Corporation, open-hearth furnace, (P.), B., 378.
- Trevithick, H. P., and Lauro, M. F., testing of pure lard, B., 109.
- Triangi, O. G. See Gerngross, O.
- Trickey, J. P., Miner, C. S., and Quaker Oats Co., manufacture and utilisation of disinfectant and antiseptic embodying furan derivatives, (P.), B., 266.
- Trickey, J. P. See also Nash, C. A.
- Trieschmann, W. See Lewis, H. F.
- Trifonov, A. [with Rjabinin, G.], photochemical combination of hydrogen and chlorine at low pressures, A., 173.

- Trifonov, *I.*, and Rascheva-Trifonova, *E.*, distribution of sulphur in the combustion of coal and coke, B., 592.
 effect of addition of dolomite on carbonisation and combustion of bituminous coal; (sulphur distribution), B., 697.
- Trifonov, *N. A.*, and Samarina, *K. I.*, internal friction of binary liquid systems containing allylthiocarbimide and dimethyl-, diethyl-, or ethyl-aniline, A., 146.
- Trillat, *A.*, use of fatty substances in the protection of aluminium against chemical action, B., 1072.
- Trillat, *J. J.*, structure of gelatin, A., 280.
 internal and surface structure of long-chain organic liquids, A., 672.
 structure of organic liquids internally and on the surface, A., 1241.
 structure of celluloid, A., 1519.
- Trillat, *J. J.*, and Novakovski, *A.*, orientation of fatty acids in contact with a liquid phase, A., 1110.
- Trillat, *J. J.* See also Dubrisay, *R.*, Thibaud, *J.*, and Doljanski, *L.*
- Trimble, *C. S.* See White, *W.*
- Trimble, *W. H.* See Youwans, *J. B.*
- Trinks, *W.*, operation of an open-hearth furnace, (P.), B., 378.
- Trinks, *W.* See also Kernohan, *R. B.*
- Triplex Safety Glass Co., Ltd., Lyttleton, *W. R.*, Wilson, *J.*, and Dick, *H. W.*, stratified bodies such as strengthened glass, (P.), B., 462.
 [manufacture of] stratified bodies such as strengthened glass, (P.), B., 664.
- Triplex Safety Glass Co., Ltd., and Wilson, *J.*, manufacture of strengthened glass, (P.), B., 462.
 stratified bodies, e.g., strengthened glass, (P.), B., 948.
- Triplex Safety Glass Co., Ltd. See also Cross, *C. R.*
- Trist, *A. R.*, production of printing plates, (P.), B., 916.
- Tritton, *F. J.*, and Colour Snapshots (1928), Ltd., photographic printing by imbibition, (P.), B., 840.
- Trivedi, *R. K.* See Naik, *K. G.*
- Trivelli, *A. P. H.*, Herschel effect, A., 717.
 point concentration theory and strain in crystal structure, A., 871.
 quantum theory of photographic exposure, A., 1385.
 mechanism of formation of the latent photographic image, A., 1534.
- Trivelli, *A. P. H.*, and Hall, *V. C.*, Herschel effect and failure of reciprocity law, A., 717.
- Trivelli, *A. P. H.*, and Jensen, *E. C.*, correlations between photographic characteristics in the normal and in the solarised regions of exposures, B., 587.
 antifogging agents in [photographic] developers, B., 1005.
- Trivelli, *A. P. H.*, and Loveland, *R. P.*, photomicrography of silver halide grains with ultra-violet radiation, A., 716.
 action of chromic acid on the sensitivity of solarised silver bromide plates, B., 441.
 effect of grain size in photographic emulsions on failure of reciprocity law and a theory of its origin, B., 686.
- Trivelli, *A. P. H.*, and Silberstein, *G.*, antifogging agents in [photographic] developers, B., 1005.
- Trivelli, *A. P. H.* See also Silberstein, *L.*
- Trnka, *R.*, and Haupt, solubility of van Bemmelen's A-zeolitic complex in hydrochloric acid under different conditions of time and amount of acid, B., 576.
- Trobridge, *G. W.* See Dunlop Rubber Co., Ltd.
- Trocello, *E.*, decomposition of aqueous solutions of insulin by heat, A., 379.
- Trocknungs-, Verschelungs-, & Vergasungs-Gesellschaft, thermal treatment of pulverulent material, (P.), B., 125.
 distillation of finely-divided coal or similar material, (P.), B., 176.
- Tröger, *C. H.* See Kästner, *J. G.*
- Trömel, *G.* See Eitel, *W.*
- Troemer, *B.* See Brintzinger, *H.*
- Trogus, *C.*, Halberschadt, *H.*, and Hess, *K.*, behaviour of cathode rays towards preparations of cellulose, A., 1353.
- Trogus, *C.*, and Hess, *K.*, X-ray investigations of cellulose derivatives. IV. Fibre diagrams of copper-alkali-cellulose, A., 21.
- Trogus, *C.*, Hess, *K.*, and Katz, *J. R.*, X-ray investigations of cellulose derivatives. VI. Lattice changes of nitrocellulose, A., 750.
- Trogus, *C.*, and Sakurada, *I.*, solution of cellulose in copper-ethylenediamine solution, A., 1417.
- Trogus, *C.* See also Derksen, *J. C.*, and Hess, *K.*
- Troitzsch, *H.* See Roth, *W. A.*
- Trojan Powder Co. See Skoglund, *J. V.*, Snelling, *W. O.*, and Wyler, *J. A.*
- Tromp, *P. J.*, and Beyers, *E.*, effect of dissolved substances on gravity concentration [of ores], B., 563.
- Tronov, *B. V.*, and Ladigina, *L. V.*, tenacity of organic radicals to oxygen in ethers, A., 83.
- Tronov, *B. V.*, and Sibgatullin, *N. C.*, tenacity of hydrocarbon residues to oxygen in acetic esters, A., 62.
- Tropsch, *H.*, and Kassler, *R.*, catalytic properties of rhenium, A., 1381.
- Tropsch, *H.* See also Fischer, *Franz.*
- Trosien, (*Frau*) *H.*, mechanism of demagnetisation, A., 281.
- Trost, *J. F.* See Hauge, *S. M.*
- Trostel, *L. J.*, and General Refractories Co., refractory composition and manufacture of articles therefrom, (P.), B., 1030.
- Trotman, *E. R.* See Trotman, *S. R.*
- Trotman, *S. R.*, Trotman, *E. R.*, and Wolsey, Ltd., utilisation of waste wool, (P.), B., 708.
- Trotter, *F.* See Pfeffer, *F. D.*
- Trout, *S. A.*, storage of pears in artificial atmospheres, B., 300.
- Trouwborst, *J. A.*, Zwart, *C.*, and Zwart, *P.*, manufacture of sheets of artificial marble or similar coloured material, (P.), B., 242.
- Troxler, *S. M.* See Rodebush, *W. H.*
- Troxler, *L. B.* See Sprague, *H. B.*
- Troy, *H. C.*, and Sharp, *P. F.*, α - and β -lactose in milk products, B., 788.
- Truchet, *R.*, action of organo-magnesium compounds on sulphonyl chlorides, A., 1172.
- Truchet, *R.* See also Bourguet, *M.*
- Trümpler, *G.*, production of [non-lifting] lacquers, (P.), B., 26.
 production of pressure-mouldable materials, (P.), B., 53.
 preparation of ammonium formate from cyanamide, (P.), B., 239.
- Truesdale, *E. C.*, sensitivity of various tests for traces of hydrogen sulphide, A., 1144.
- Truffaut, *G.*, [phosphatic] fertiliser, (P.), B., 297.
- Truffaut, *G.*, and Pastac, *I.*, chemotherapy of organic dyes in plant diseases, A., 386.
- Trumble, *M. J.*, cracking still and process, (P.), B., 1141.
- Trumbull, *H. L.*, and Goodrich Co., *B. F.*, dispersed rubber isomeride, (P.), B., 1040.
- Trumpf, *B.*, transition probabilities in lithium. IV., A., 124.
 number of dispersion electrons in sodium and lithium vapours, A., 514.
 Raman effect and the constitution of molecules. I. and II., A., 1091, 1499.
- Truninger, *E.*, phosphorus fertilisation of meadow land. II., B., 581.
- Truninger, *E.*, and Keller, *F.*, fertilising action of bone meal, B., 784.
- Truscott, *S. J.*, computation of the probable value of ore-reserves from assay results, B., 423.
- Truszkowski, *R.*, uricase. II. Bacterial nature of the action of uricolytic extracts and dialysates. III. Comparison with activated charcoal; contact nature of the action of uricase. IV. Preparation and properties of ox-kidney uricase, A., 1476.
- Truzzell, *J. E.* See Midland Coal Products, Ltd.
- Trygg, *L. H.* See Hägglund, *E.*
- Trytten, *M. H.*, magnetic susceptibilities of sodium chloride and bromide solutions, A., 1112.
- Trzebiatowski, *W.*, potentiometric determination and separation of chromium, vanadium, and molybdenum, applied to steel analysis, B., 821.
- Trzebiatowski, *W.* See also Jakob, *W. F.*
- Tsai, *C.*, and Hsu, *F. Y.*, effect of intravenous injection of sodium oxalate and citrate on the concentration of plasma-calcium and -inorganic phosphorus, A., 1473.
 plasma-calcium and -inorganic phosphorus following intravenous injection of parathyroid extract; the source of mobilised calcium, A., 1479.
- Tschastuchin, *V. J.* See Ivanov, *N. N.*
- Tschavdarov, *D.* See Karaoglanov, *Z.*
- Tschebotareva, *N.* See Novopokrovski, *I.*
- Tschelincev, *V. V.*, and Schmidt, *W. N.*, preparation of α -ketonic acids, A., 577*.
- Tschelzov, *V.* See Tschibissov, *K.*
- Tscherlov, *S. J.* See Mischtschenko, *K. P.*
- Tschernaiev, *I. I.*, nitro-derivatives of platinum. V., A., 179.
- Tschernaiev, *I. I.*, and Chorunzhnikov, *S. I.*, nitro-derivatives of platinum. VIII., A., 164.

- Tschernaiev, I. I., and Fedorova, A. N., nitro-derivatives of platinum. VI., A., 180.
- Tschernaiev, I. I., and Klatzschkin, F. M., nitro-derivatives of platinum. VII., A., 180.
- Tschernaiev, I. I. See also Tschugaev, L. A.
- Tschernikov, Gadaskin, I. D., and Gurevitsch, I. I., oxidation of benzene in the isolated liver of warm- and cold-blooded animals, A., 1615.
- Tschernojarov, A. A. See Vanin, I. I.
- Tschernokhvostov, V., and Katz, L., antigenic properties of arsenic, A., 361.
- Tschernozhukov, N. I., standards for Diesel fuel, B., 131.
- preparing petrolatums, B., 131.
- Tschernukhin, A., formation of essential oil in the coriander plant, A., 121.
- Tschesche, R. See Slotta, K. H., and Windaus, A.
- Tschescheva, Z. P. See Dumanski, A. V.
- Tschesnokov, V. A., and Bazyrina, K., determination of carbon dioxide assimilation, A., 506.
- Tschesnokov, V. A. See also Bazyrina, E. N.
- Tschevscheva, Z. P. See Dumanski, A. V.
- Tschibissoff, K., developers and development. I. Physico-chemical basis of a rational composition for developer solutions, B., 741.
- Tschibissoff, K., and Tschelzov, V., developers and development. II. Metol-quinol and metoquinone developers. III. Effect of dilution of developer on photographic properties, B., 741.
- Tschireh, E. See Krüger, D.
- Tschitschibabin, A. E., and Gertschuk, M. P., reduction products of derivatives of aminopyridine, A., 925.
- Tschitschibabin, A. E., Kirsanov, A. V., Korolev, A. I., and Voroschov, N. N., non-tannin substance of extract of *Saxifraga crassifolia*, I. Bergenin, A., 218.
- Tschitschibabin, A. E., Kirsanov, A. V., and Rudenko, M. G., non-tannin materials from badan (*Saxifraga crassifolia*). II. Arbutin, A., 749.
- Tschitschibabin, A. E., and Knunjanz, I. L., condensation of 2-aminopyridine with formaldehyde, A., 221.
- products of the nitration of 2-dimethylaminopyridine, A., 222.
- Tschitschibabin, A. E., and Kursanova, A. I., synthesis of 2-hydroxyquinolines, A., 1594.
- Tschitschibabin, A. E., and Preobraschenski, N. A., synthesis of pilopinic acid and structure of pilocarpine, A., 452.
- Tschitschibabin, A. E., and Schitschukina, M. N., action of ammonia on bromoacetaldehyde and preparation of pyrazine, A., 323*.
- Tschitschibabin, A. E., and Stepanov, F. N., picolide of Scholtz and acetyl derivatives of indolizine and 2-methylindolizine, A., 352*.
- product of the action of propionic anhydride on 2-methylpyridine, A., 619.
- Tschizhevski, N., and Verkhovtzev, M., determination of calorific value of bituminous coals with high volatile matter content, B., 355.
- Tschmutov, K. See Schilov, N. A.
- Tschopp, E. See Calatroni, R.
- Tschudin, E. See Moulton, H. F.
- Tschugaev, L. A., and Orelkin, B. P., complex compounds of platinum with aminoacetal, A., 199*.
- Tschugaev, L. A., and Tschernaiev, I. I., oxidation reactions of complex platinum compounds. II. Oxidation by persulphate and free oxygen, A., 179*.
- Tschunkur, E. See I. G. Farbenind. A.-G.
- Tseng, A. T. K. See Hydraulic Brake Co.
- Tso, E., comparison of the nutritive properties of soya-bean "milk" and cow's milk, A., 368.
- Tsuchimoto, C. See Watanabe, T.
- Tsuchiya, T. See Toyama, Y.
- Tsuji, A. See Ishino, M., and Tanaka, Shinsuke.
- Tsuji, K. See Kaziro, K.
- Tsujimoto, M., illipene, and higher alcohols in commercial illipé butter, A., 317.
- kanyl alcohol, a new alcohol in the liver oil of "Tarabakani," *Paralithodes Camtschatica* (Tilesius), A., 319.
- unsaponifiable matter of ego oil, A., 385.
- Tsujimura, M., tea tannin from green tea, A., 1295.
- Tuan, H. C., pieric acid as a destaining agent for iron alum hæmatoxylin, A., 1484.
- Tubakaiev, V. A. See Malitzky, V. P.
- Tabbs, F. R., plant nutrition. II. Effect of manurial deficiency on the mechanical strength of barley straw, B., 434.
- Tucan, F., aluminium silicate from Allehar, S. Serbia, A., 1156.
- Tucker, C. M. See Gill, A. H.
- Tucker, D. A. See Joslyn, M. A.
- Tucker, H. L., [reinforced] composition flooring, (P.), B., 908.
- Tucker, S., concentration of copper ores, (P.), B., 106.
- Tucker, S. H. See Maitland, P.
- Tudor, I., and Tudor-Hart, O., treatment of fibrous materials, (P.), B., 763.
- Tudor-Hart, O. See Tudor, I.
- Tueva, O., assimilation of phosphoric acid by barley in an aqueous solution, A., 262.
- Tüxen, R. See Curtius, T.
- Tufts, L. T. See Frolich, P. K.
- Tukato, S., and Leinzinger, M., determination of gold in animal organs, A., 1486.
- Tulip, S., and Tulip, W. L., treatment of fine coal dust to render it suitable for transport in open vessels, B., 597.
- Tulip, W. L. See Tulip, S.
- Tulleners, A. J. See Waterman, H. I.
- Tulli, A., mummification of the ancient Egyptians: chemical analysis of a Vatican Museum mummy, A., 104.
- Tully, C. B. See Tully, Sons & Co., Ltd.
- Tully, Sons & Co., Ltd., and Tully, C. B., water-gas generating apparatus, (P.), B., 405.
- Tuorila, P., effect of calcium carbonate and of sulphuric acid on the acidity of various peats, B., 575.
- capacity of different types of peat soils to absorb ammoniacal nitrogen, B., 580.
- Turbo-Mixer Corporation. See Beers, H. S., and Johnson, J.
- Turcatti, E. S., adrenals and pancreatic diabetes, A., 1207.
- Turek, O., blasting cartridge, percussion cap, detonator, detonating fuse, etc., (P.), B., 533.
- Turek, O. See also Krauz, C.
- Turkington, V. H., and Bakelite Corporation, manufacture of a moulding mixture, (P.), B., 677.
- Turkovskaja, A. V. See Isgarischev, N. A.
- Turnbull, N. K., galvanising bath, (P.), B., 64*.
- Turnbull, R. See McLennan, J. C.
- Turner, B., and Ferro-Arc Welding Co., Ltd., arc-welding electrode, (P.), B., 955*.
- Turner, D. See Adcock, F.
- Turner, E. E. See Brewin, A., Fox, (Miss) D. L., Henley, (Miss) R. V., Le Fèvre, R. J. W., and Lesslie, (Miss) M. S.
- Turner, J. F., Matthews, D. H., Ross, M. F., and Vacuum Oil Co., demulsifying soap, (P.), B., 451.
- Turner, K., fatty acids in the liver of the sheep, A., 1465.
- Turner, K., and Watson, M. M., sphingomyelin, phrenosin, and kersin in films one molecule thick on water, A., 539.
- Turner, R. G., starch iodide reaction: stability and proportionality of colour produced by small amounts of iodine, A., 1143.
- micro-determination of iodine in blood, A., 1463.
- Turner, R. H., action of bacteria on fat. I. Relative merits of various differential plating media for lipase-producing organisms. II. Microscopic study of emulsion of oil in an agar medium, A., 115.
- Turner, S. D., and Harrell, J. W., calculating heat for flashing petroleum hydrocarbons, B., 357.
- Turner, T. A. See Shriner, R. L.
- Turner, W. E. S., and Winks, F., thermal expansion of glass. I. General form of the expansion curve. II. Glasses of the series sodium metasilicate-silica, B., 767.
- Turner, W. E. S. See also Childs, A. A., Dumbleby, V., and English, S.
- Turner Tanning Machinery Co., [work-operating tool for] machines for treating hides, skins, leather, etc., (P.), B., 27.
- Turova-Pollak, M. B. See Zelinski, N. D.
- Turowska, I., vital conditions of ferruginous bacteria, A., 819.
- Turpain, A., and De Bony de Lavergne, R., ultramicroscope allowing the direct projection of ultramicroscopic tests and Brownian movement, A., 1013.
- Turpeinen, O. See Virtanen, A. I.
- Tussaud, J. T., composition [of plaster and oil] for modelling, sculpture, pottery, etc., (P.), B., 1030.
- Tussenbroek, M. J. van. See Waterman, H. I.
- Tutin, F. See Staniland, L. N.
- Tutkevitsch, L. See Alpern, D.

- Tutschkevitch, V. M., passage of electric current through solid paraffin in the dark and during irradiation by X-rays, A., 1348.
- Tuttle, B. S. See Technicolour Motion Picture Corp.
- Tuttle, C. R. M., cryoscopic study of the molecular equilibrium of resorcinol in aqueous solutions of calcium, barium, and magnesium chlorides and ammonium and magnesium sulphates, A., 1247.
- Tutundžić, P. S., determination of metals by deposition in a galvanic cell, A., 882.
- Tuturin, N. V. See Sharvin, V. F.
- Tuzi, Z., and Kadita, O., prevention of explosion danger in an oil tanker; physical analysis of a very weak mixture of petroleum vapour, B., 6.
- Tuzson, P. See Zechmeister, L.
- Tvertzin, V. S., and Milin, V. B., radioactivity of Grozni bore-hole waters, A., 886.
- Tvertzin, V. S. See also Voronov, A. I.
- Tweedy, S., determination of naphthalene in oils and coal gas, B., 594.
- Tweedy, W. R., and Koch, F. C., modification of the Kramer-Tisdall method for the microchemical determination of ionisable calcium in blood-plasma, A., 1202.
- Twells, R., pebble-mill linings, B., 1133.
- Twiss, D. F. See Dunlop Rubber Co., Ltd.
- Twitchell Process Co. See Fischer, C., jun.
- Twyman, F., and Fitch, A. A., quantitative analysis of steels by spectrum analysis, B., 1032.
- Twyman, F., Perry, J., and Hilger, Ltd., A., colorimeter, (P.), B., 972*.
- Twyman, F. See also Hilger, Ltd., A.
- Tyler, A. H., apparatus for manufacturing bituminous compounds, (P.), B., 285.
- Tyler, A. W., continuous calcination of gypsum, (P.), B., 862.
- Tyler, F., magnetic characteristics of nickel, A., 673.
- Tyndall, A. M., and Powell, C. F., mobility of ions in pure gases, A., 1336.
- Typke, K. See A. E. G.-Union Elektrizitäts-Ges.
- Tyrer, C., spinning of artificial silk threads [on to a "ring" or "traveller" spindle], (P.), B., 505.
- Tyrer, C., and Mahood, G. H., spinning of artificial silk threads [on to bobbins, etc.], (P.), B., 237.
- Tyrer, D. See Imperial Chem. Industries, Ltd.
- Tyrell, (Miss) W. A. See Mackenzie, (Miss) W. A.
- Tyvoňák, Z. See Herasymenko, P.
- U.
- U. G. I. Contracting Co. See Chrisman, C. S., Dashiell, P. T., and Parsons, M.
- Ubal dini, I., fractionation by means of solvents, and chemical study, of a commercial primary tar, B., 648.
- Ubbelohde, A. R. See Egerton, A. C.
- Uchida, K., effect of the vegetative nerves on the choline content of saliva, A., 105.
- Uchida, Y., ultra-violet band spectrum of sodium-potassium molecule, A., 650.
- Uddeholms Aktiebolag, and Wegner, N., purification of sulphite alcohol, (P.), B., 261.
- Udiutzeva, V. S. See Shabalin, K. N.
- Udy, M. J., manufacture of chromic acid, (P.), B., 323.
- Udy, W. H., butter fat losses in buttermilk, B., 346.
- Udylite Ges.m.b.H., degreasing of metal articles, (P.), B., 1034.
- Uehler, B., and Kaliforschungs-Anstalt Ges.m.b.H., [recovery of oxides of nitrogen from waste gases obtained in the production of nitrates [from chlorides and nitric acid], (P.), B., 662.
- Ueda. See Uyeda.
- Uegaki, S., influence of colloidal silver on metabolism as shown by urinary constituents, A., 1618.
- Ueki, S. See Kujirai, T., and Setoh, S.
- Ueno, M., constitution of hydroxylupanine. I., A., 1454.
- Ueno, S. See Chikashige, M.
- Ueno, Sei-ichi, special selective adsorption of Japanese acid clay, A., 407.
- narcotic action of anaesthetics towards reducing catalysts [for the hydrogenation of fatty oils], B., 292.
- new hydrocarbons produced during hydrogenation of fish oils, B., 1036.
- Ueno, Sei-ichi, and Ikuta, H., composition of oils and fats of Japanese birds, A., 804.
- composition of the saturated fatty acids of Japanese great herring oil (ō-nishin oil), A., 804.
- Ueno, Sei-ichi, and Kusei, N., structure of isoolic acid produced during hydrogenation of oleic acid, A., 577.
- acetyl value of unsaturated fatty oils, B., 956.
- Ueno, Sei-ichi, Yamashita, Matsusaku, and Ota, Y., nutritive value of hardened oils. III. Influence of ultra-violet irradiation, B., 430.
- Ueno, Sei-ichi, and Yukimori, T., negative catalysts of the hardening of fatty oils. VIII., B., 292.
- Ueno, Sei-ichi. See also Ikuta, H.
- Ueno, Shuzo, ternary silver alloys. I. System silver, copper, zinc, A., 284.
- ternary silver alloys. II. System silver-aluminium-zinc, A., 536.
- relation between the colours and the micro-structures of some binary and ternary silver alloys, with visible rays, A., 681.
- Uffelmann, F. L., expansion of metals at high temperatures, A., 1508.
- Ugarte, T., approximate analysis of 1 c.c. of milk, B., 1128.
- Ugine-Infra. See Sorrel, V.
- Uglow, W. A., Reberg, W. A., and Boltina, M. W., lead content of the glazes on pottery manufactured in Ukraine, B., 947.
- Uhde, F., production of material containing a high percentage of calcium nitrate and capable of being readily strewn, (P.), B., 475.
- simultaneous preparation of fertilisers containing magnesium phosphate and of nitrogenous fertilisers, (P.), B., 924.
- Uhde, G. F., separation of ammonia from gases and mixtures of gases containing it, (P.), B., 283*.
- synthetically producing ammonia from its elements, (P.), B., 419*.
- conversion of ammonia into fertilisers, (P.), B., 681.
- Uhde, O., incineration of refuse and similar waste materials, (P.), B., 266.
- Uhde, R., and Heissdampf-Ges.m.b.H., heat transferer, (P.), B., 846*.
- Uhl, A. H. See Hassel, O.
- Uhle, D. J., and Durnin, J. V., pulverising or grinding mill, (P.), B., 886.
- Uhler, W. P. See Swartz, T. A.
- Uhlmann, A., and Otto & Sons, A. T., manufacture of objects [glass, enamel] from non-conducting materials, (P.), B., 820*.
- Uhlmann, A. See also Aktis Patent-Verwertungsges. m.b.H.
- Uhlmann, H., identification of pine-needle extract, B., 348.
- Uhrmacher, R. R. See Frolich, P. K.
- Ukhov, L. P. See Rogatkin, N. N.
- Ulbrich, E. See Willstätter, R.
- Ulček, A., analysis of artificial pancreatic bates, B., 627.
- Ulex, H., testing of casein for technical purposes, B., 880.
- Ulfers, F. See Schering-Kahlbaum A.-G.
- Ulich, H., ionic entropy and solvation, A., 1251.
- Ullmann, F. See Prétot, M.
- Ullmann, G., clarification and decolorisation of effluents from dyeworks, (P.), B., 220.
- rendering harmless substances which cause hardness in soaping and washing operations, and production of means suitable therefor, (P.), B., 220*.
- Ullmann, G., and Seck, W., carrying out washing operations [on textiles] with hard water, (P.), B., 763.
- Ullmann, H. J. See Bischoff, F.
- Ullmann, H. M., and Theis, E. R., unhairing hides and skins, (P.), B., 874.
- Ullstein Akt.-Ges., protection of metal parts in electrolytic baths, (P.), B., 290.
- Ulmer, W. See Curtius, T.
- Ulrey, C. T. See Westinghouse Lamp Co.
- Umbach, H. See Roth, W. A.
- Umbrecht, J. See Eiehler, H.
- Umpleby, F., catalytic gas generator, (P.), B., 94*.
- Umstätter, H. See Berl, E.
- Unaphalt (Roads), Ltd., and Richards, H. E. G., construction of roads or pavements, (P.), B., 771.
- Underhill, F. P., and Peterman, F. I., metabolism of aluminium. I. Determination of small amounts of aluminium in biological material. II. Absorption and deposition of aluminium in the dog. III. Absorption and excretion of aluminium in normal man. V. Relation of age to the amount of aluminium in tissues of dogs, A., 106.

- Underhill, F. P., Peterman, F. I., Gross, E. G., and Krause, A. C., metabolism of aluminium. VI. Occurrence of aluminium in human liver and kidney. VII. Aluminium content of some fresh foods, A., 106.
- Underhill, F. P., Peterman, F. I., and Sperandeo, A., metabolism of aluminium. VIII. Toxic effects produced by subcutaneous injection of aluminium salts, A., 106.
- Underhill, F. P., Peterman, F. I., and Steel, S. L., metabolism of aluminium. IV. Fate of intravenously injected aluminium, A., 106.
- Underhill, F. P. See also Callison, W. E.
- Underwood, A. J. V. See Parker, R. G.
- Underwood, H. W., jun., and Baril, O. L., catalysis in organic chemistry. III. Decomposition of esters by anhydrous zinc chloride, A., 321.
- Underwood, H. W., jun., Baril, O. L., and Toone, G. C., preparation of solid derivatives for identification of ethers, A., 1554.
- Underwood, H. W., jun., and Barker, G. E., diphenic and phthalic acid series. IV., A., 1550.
- Underwood, H. W., jun., and Toone, G. C., catalysis in organic chemistry. II. Mechanism of the reactions, A., 320.
- Underwood, H. W., jun., and Wakeman, R. L., catalysis in organic chemistry. I. Reactions of ethers with acid chlorides, acids, and anhydrides, A., 320.
- Underwood, J., bright plating on small lead parts, B., 993.
- Ungerer, E., exchange reactions of sparingly soluble phosphates and sulphates with permutites, A., 1122.
- Union Carbide & Carbon Research Labs., Inc. See Lytle, A. R.
- Union Chimique Belge Société Anonyme, purification of coke-oven gas and similar gases, (P.), B., 230.
- gaseous exothermal catalyses, (P.), B., 690.
- iodination of *o*-oxyquinoline-*ana*- [8-hydroxyquinoline-5-]sulphonic acid, (P.), B., 809.
- preparation of the sodium salt of *p*-oxyphenylarsinic [*p*-hydroxybenzenecarsinic] acid, (P.), B., 1004.
- Union Chimique Belge Société Anonyme. See also Guillissen, J., Piette, O., and Verpeaux, P. E.
- Union Oil Co. of California. See Merrill, D. R., and Raine, W. A.
- Unique & Unity Cycle Co., Ltd., and Munn, J., method of performing [internal] brazing, soldering, and similar operations, (P.), B., 379.
- United Combustion Engineers, Inc. See Sinclair, R.
- United Filters Corporation. See Sweetland, E. J.
- United Kingdom Oil Co., Ltd. See Forwood, G. F.
- United Oil Co. See Barton, P. D.
- United Products Corporation of America. See Biddle, A.
- United States. See Frey, R. W., Hannen, P. T., and Owen, W. L.
- United States, Bureau of Mines, oxides in pig iron: their origin and action in the steel-making process, B., 864.
- United States, Bureau of Standards, sodium oxalate as a standard in volumetric analysis, A., 726.
- United States Colloid Mill Corporation. See Eppenbach, W.
- United States Gypsum Co. See Brookby, H. E., Ericson, R., and Pfeiffer, F. D.
- United States Industrial Alcohol Co., manufacture of cellulose acetate, (P.), B., 609, 708.
- United States Industrial Alcohol Co. See also Ricard, E.
- United States, Naval Medical Bulletin, [disinfecting action of] *N*-chlorosuccinimide, B., 642.
- United States Rubber Co. See Banks, H. W.
- United States Smelting, Refining, & Mining Co. See Mulock, F. S.
- United States, Tanners' Council, unhairing of hides or skins, (P.), B., 523.
- United Water Softeners, Ltd., and Lawrence, H. S., water-softening apparatus, (P.), B., 742.
- United Water Softeners, Ltd. See also Higgins, E. B.
- Universal Oil Products Co. See David, A. D., Dubbs, C. P., Duncan, P. J., Egloff, G., Howard, W. R., Huff, L. C., Morrell, J. C., Pratt, C. J., and Wadsworth, J. M.
- Universal Process Co. See Godbe, A. H.
- Universal Refrigerators, Ltd., refrigeration plant of the intermittent absorption or adsorption type, (P.), B., 540.
- "Universelle" Cigarettenmaschinen-Fabr. J. C. Müller & Co., and Müller, C. W., drying of tobacco, (P.), B., 967.
- University of California, increasing strength of timber and rendering it immune from attack by animal, bacterial, and fungoid organisms, B., 192.
- Unkovskaya, V. A. See Shukov, I. I.
- Unmack, (Miss) A., Murray-Rust, D. M., and Hartley, (Sir) H., conductivity of thiocyanates in methyl alcohol, A., 703.
- Uno, D. See Chikashige, M., and Haas, M.
- Unsold, A., thermal excitation of atoms in the reversing layer of the sun, A., 266.
- Unthank, G. R. See Green, E. W.
- Upp, C. B. See Westinghouse Electric & Manuf. Co.
- Uppal, H. L. See Yajnik, N. A.
- Upson, C. A. See Upson Co.
- Upson, F. W., Maxwell, R. T., and Parmelee, H. M., structure of the salts of aromatic nitriles, A., 911.
- Upson Co., intumescent compositions, (P.), B., 712.
- manufacture of sheets [e.g., wall-board] from plastic material, (P.), B., 949.
- Upson Co., and Upson, C. A., manufacture of [heat-insulating material [from felt], (P.), B., 666.
- Upson Co., Upson, C. A., and Spencer, H. McC., composite [cotton-jute heat-insulating material, (P.), B., 554.
- Urakawa, B. See Matsuo, G.
- Urano, S., and Imai, S., manufacture of basic calcium hypochlorites, (P.), B., 557.
- Urazov, G. G., order of deposition of the Solikamsk potassium salts from the point of view of the course of crystallisation of the quaternary system: $KCl-NaCl-MgCl_2-H_2O$, A., 1015.
- Urazov, G. G., and Chitaev, A. V., barium process of manufacturing alumina from bauxites and aluminium silicates rich in silica, B., 12.
- Urazov, G. G., Pogodin, S. A., and Samorueev, G. M., ternary alloys of aluminium, silicon, and copper, A., 1106.
- Urazov, G. G., and Vilnyanski, Y. E., basic processes of manufacturing alumina, B., 11.
- Urazov, G. G., Vilnyanski, Y. E., and Morachevski, Y. A., soda-lime process of manufacturing alumina from bauxite and aluminium silicates rich in silica, B., 11.
- Urbach, E., and Sicher, G., skin. III. Sugar content of the skin under physiological and pathological conditions, A., 363.
- Urbain, E., manufacture of phosphorus chlorides, (P.), B., 325.
- Urbain, E., and Urbain Corporation, manufacture of active carbons, (P.), B., 7*.
- bone-black of great decolorising power, (P.), B., 547*.
- Urbain, G., complex salts and electroaffinity, A., 137.
- Urbain, O. M., and Miller, J. N., production of oxygen in the flocculation of a negative colloid by an electrolyte, A., 856.
- relative merits of sucrose, dextrose, and laevulose as used in the preservation of eggs by freezing, B., 837.
- effect of iron in the accuracy of the determination of dissolved oxygen [in water] by the Winkler method, B., 1094.
- Urbain, O. M. See also Miller, J. N., and Travers, J. T.
- Urbain, P., spectrographic determination [of minute amounts of gold], A., 728.
- Urbain Corporation. See Urbain, E.
- Urban, H. See Hagglund, E.
- Urbanek, L., salt maintenance in the animal organism, A., 244.
- Urech, C. See Berthoud, A.
- Urech, E. See Staudinger, H.
- Urey, H. C., and Bates, J. R., continuous spectra of flames containing the halogens, A., 264.
- Urey, H. C., Dawsey, L. H., and Rice, F. O., mechanism of homogeneous gas reactions. II. Absorption spectrum of nitrogen pentoxide and its method of decomposition, A., 11.
- Urey, H. C., and Lavin, G. I., reactions of dissociated water vapour, A., 45.
- reactions of atomic hydrogen [with organic compounds], A., 46.
- Urey, H. C. See also Rice, F. O.
- Urfier, C., and Société d'Études Minières & Industrielles, manufacture of ammonia, (P.), B., 58*, 765*.
- Urfier, C. See also Duparc, L.
- Urfion, E., decomposition of divinyl [ethylene] glycol by various catalysts: Δ^1 -cyclopentene-1-aldehyde, A., 1039.
- catalytic decomposition of divinyl [ethylene] glycol by reduced copper, A., 1160.
- Urry, W. D. See Paneth, F., and Perman, E. P.
- Urushibara, Y., peculiarity in the formation of the nitrile-esters of dicarboxyglutaconic acid, A., 461.
- condensations producing esters of acetylpropenecarboxylic acids, A., 743.
- Usami, S., determination of sandy matter in soya-bean cakes, B., 1129.
- Usatschev, P. W. See Taipale, K. A.
- Uschakov, M. I., reduction of acetone by magnesium in presence of anhydrous aluminium chloride, A., 580*.

- Ushakov, S. N., and Kon, A. V., condensation of benzyl chloride in presence of chlorides of metals, A., 1566.
- Ushakov, S. N., and Shneer, J. M., viscosity of cellulose nitrate solutions in mixtures of various solvents, A., 855.
- Ushakov, S. N., and Sokolov, A. D., potentiometric control of the degree of mercerisation of cellulose, B., 1062.
- condensation of formaldehyde with the terpenes of Siberian fir oil, B., 1120.
- Uspenski, N., oil content of sunflower seeds, B., 154.
- Ussanovitch, M. I., and Borovik, S. A., system K_2CO_3 - $Ca(OH)_2$ - KOH - $CaCO_3$, A., 861.
- Uselli, F., carbohydrate metabolism of muscle. II. Lact-acidogen, lactic acid, glycogen, total carbohydrate, and dry residue of striated muscle of the fetus of *Bos taurus*, A., 109.
- Usuki, K., influence of diets on the formation of biliary and renal calculi. I. Diet deficient in fat-soluble vitamin, A., 506.
- Utevski, A., fate of pyruvic acid in the autolysis of muscular tissue, A., 244.
- Utkina-Ljubovzova, X., capability for activation of hydrocyanic acid of intracellular animal and vegetable proteases, A., 1217.
- Utkina-Ljubovzova, X., and Steppuhn, O., identity of cell-proteases of different sources, A., 957.
- Utkina-Ljubovzova, X. See also Steppuhn, O.
- Utkin-Ljubovzov, L., sistoproteolytic action of serum-albumin, A., 956.
- Utsch, H. See Loevenich, J.
- Utterback, C. L., platinum contamination of palladium in palladium point determinations, A., 314.
- Utzino, S. See Wieland, H.
- Uvachrom A.-G. für Farbenphot., imbibition processes for producing pictures in colour, (P.), B., 1092.
- Uxa, G., [milk] solids-not-fat, B., 346.
- Uyeda, K. See Sato, K.
- Uyeda, Y. See Sawai, I.
- Uyeda, Y., *Yoshisuke*, mercaptals of sugars. III. *iso*Butylmercaptals of sugars, A., 196.
- sugars. III. Galactose from sea-weed "Tengusa," A., 259.
- bamboo. II. Pulp-making from the bamboo "Mōsō-chiku," B., 278.
- Japanese dyeing tannins. VII. Analysis of the dyeing tannins by the cinchonine method, B., 919.
- Uyei, N. See Corpor, H. J.
- Uyterhoeven, W., and Harrington, M. C., secondary emission from metals by impact of metastable atoms and positive ions, A., 1336.
- Uzel, R., microchemical detection of silver as azide, A., 1010.
- V.
- Vacek, T., adrenaline as a disturbing factor in the determination of blood-gases, A., 1461.
- chemical and photochemical oxidation of commercial adrenaline solutions, B., 531.
- significance of the degree of dissociation of acids in the oxidation of adrenaline, B., 531.
- Vacuum Oil Co. See Turner, J. F.
- Vaders, E., new silicon-zinc-copper alloy, B., 992.
- Vaders, E. See also Metallbank & Metallurg. Ges. Akt.-Ges.
- Vaganova, E. See Kharichkov, V.
- Vageler, P., and Weltersdorf, J., base exchange and acidity [in soils], B., 295.
- base exchange and acidity [in soils]. II. Preliminary experiments with permutits, B., 523.
- Vagi, S. See Fehér, D.
- Vaidya, B. K., geometrical inversion in light, A., 1534.
- Vaidyanathan, V. I., influence of chemical colloidalisation on the anomalous diamagnetism of bismuth and antimony, A., 673.
- Vaillant, P., absorption spectrum of cobalt chloride and its variation, A., 10.
- absorption of cobalt salts in concentrated solutions, A., 288.
- Vajda, O., efficiency of drying by hot air relative to the maximum permissible temperature of the material, B., 221.
- Vajna, I., relation between degree of dispersion and nature of the exchange bases of soil, B., 386.
- Valasek, J., K-series of the elements 48 Cd and 49 In, A., 4.
- Valdés, L., purification of effluents by activated sludge; laboratory results with an effluent from Oviedo, B., 1005.
- Valdés, L. See also Del Fresno, C.
- Valenkov, N., Eberhard effect in relation to photographic photometry, A., 174.
- Valentin, F. See Votoček, E.
- Valentin, H., physiological and chemical experiments with "U.-V." glasses and a method of determining their quality, B., 1029.
- Valentine, H. J., preservation of flowers, foliage, etc., (P.), B., 163, 1125*.
- Valentine, I. R., malleable iron: short-cycle anneal, B., 376.
- Valentine, I. R. See also Brit. Thomson-Houston Co., Ltd., and Gen. Electric Co.
- Valentiner, S., solubility of inert gases in water, A., 683.
- Valenzuela, A., composition of Philippine coffee, B., 81.
- Valenzuela, A., and West, A. P., composition of Philippine bagasse, B., 366.
- Valenzuela, A., and Wester, P. J., composition of some Philippine fruits, vegetables, and forage plants, B., 165.
- Valette, G., mono- and poly-alkoxy- or halogeno-substituted derivatives of benzhydrylamine and α -diphenylethylamine, A., 765.
- Valette, G. See Régnier, J.
- Valliaschko, N. A., and Blizniukov, V. I., synthesis of antipyrine, A., 1193.
- Valkenburgh, G. A. van. See Eyring, H.
- Valkó, E., kinetics of step-reactions and their relation to the mass law of gel- and surface-dissociation, A., 688.
- Valkó, E. See also Mark, H.
- Vallance, R. H. See Friend, J. A. N.
- Vallet, J., value of an iron ore or other material added to the blast furnace as a function of the yield of cast iron, B., 950.
- Vallette, J. See Meunier, L.
- Valley Mould & Iron Corporation. See Kauffman, E. J.
- Valouch, M. A., measurement of reflecting power for X-rays of long wave-length, A., 1229.
- Vanadium Alloys Steel Co. See McKenna, P. M.
- Vanadium Corporation of America, and Saklatwalla, B. D., manufacture of vanadium-aluminium-silicon alloys, (P.), B., 465*.
- Van Atta, C. M. See Hughes, A. L.
- Van Buggenhoudt, G. See Week, H.
- Vance, J. E. See Foote, H. W.
- Vandamme, J. See Mund, W.
- Vandegrift, J. N., and Barnett, C. M., [distillation] retort, (P.), B., 1101.
- Vandemaële, P., manufacture of artificial silk, (P.), B., 504.
- Van Den Bergh's Margarine Ges.m.b.H., preparation of [vitamin-containing] margarine from vegetable fats, (P.), B., 518.
- Vanderbilt, R. T., and Vanderbilt Co., Inc., R. T., colouring of clay, (P.), B., 1067.
- Vanderbilt Co., Inc., R. T. See Murrill, P. I., Somerville, A. A., and Vanderbilt, R. T.
- Van Derhoff, H. E., and Eastman Kodak Co., film-forming element, (P.), B., 1047.
- Vanderplank, J. E. See Bews, J. W.
- Van Deurs, J. A. S., preservation of fats [in raw materials], (P.), B., 675.
- Van Deurs, J. A. S. See also Schröder, E.
- Vande Velde, A. J. J., urea solutions as culture media for microbes. II. and III. A., 503, 1318.
- Vande Velde, A. J. J., and Verbelen, A., biochemical researches on soil, B., 524.
- biochemical researches on fertile soil. II. Adsorption capacity, B., 1082.
- Van Dyck, L. S., Throne, B., and Myers, C. N., arsenic in eczema and allied conditions in infants and young children, A., 1207.
- Vangelovici, M. See Minovici, S.
- Van Giesen, I. D., water-works' corrosion problems, B., 286.
- Vanheiden, F. See Ley, H.
- Vanin, I. I., and Tschernojarov, A. A., certain transformations of bornyl chloride, A., 610.
- Vanino, L., action of acetaldehyde, chloral hydrate, and mannitol on silver thiocyanate and the insoluble silver halides in presence of strong bases, A., 435.
- coloured-light recipes, B., 841.
- Vanino, L., and Schmid, F., yellow luminous phosphorescence, A., 176.
- Van Schaack, R. H., jun., and Van Schaack Bros. Chemical Works, Inc., pyroxylin [lacquer] composition, (P.), B., 26.
- Van Schaack Bros. Chemical Works, Inc. See Van Schaack, R. H., jun.
- Vanscheidt, A., and Moldavski, B., action of stannous chloride on aromatic carbinols, A., 1035, 1576.

- Vansell, *G. H.*, diastase in honey, *B.*, 391.
- Vansell, *G. H.*, and Freeborn, *S. B.*, source of diastase in honey, *B.*, 391.
- methods used to detect heated honeys, *B.*, 740.
- Vanselow, *W.* See McNally, *J. G.*, and Sheppard, *S. E.*
- Van Slyke, *D. D.*, and Hawkins, *J. A.*, gas and electrolyte equilibria in blood. XVI. Evolution of carbon dioxide from blood and buffer solutions, *A.*, 1053.
- Van Slyke, *D. D.* See also Moore, *N. S.*, and Sendroy, *J. I.*
- Van Tassel, *E. D., jun.*, and Van Tassel Sole & Leather Corporation, treatment of leather-impregnating material, (*P.*), *B.*, 294*.
- Van Tassel Sole & Leather Corporation. See Van Tassel, *E. D., jun.*
- Van Vactor, *W. F.*, explosive powder, (*P.*), *B.*, 533.
- Varadhan, *C.*, and Watson, *H. E.*, petrol-water emulsions, *B.*, 544.
- Varapando, *K. V.* See Iramdar, *R. S.*
- Varasova, *E.*, polarographic studies with the dropping mercury cathode. VIII. Maxima of current due to electro-reduction of oxygen in solutions of strong electrolytes, *A.*, 304.
- Vareton, *E.* See Mezzadrol, *G.*
- Varga, *J.*, production of hydrocarbons from naphthalene, (*P.*), *B.*, 1059.
- Varga, *J.* See also Holzverkohlungs-Ind. *A.-G.*
- Vargha, *L. von.* See Schönberg, *A.*
- Varian, *R. H.*, intensity measurements on the Compton effect for soft X-rays, *A.*, 127.
- Varma, *P. S.*, and Panicker, *P. B.*, halogenation. IV. Bromination and iodination of aromatic acids, *A.*, 1432.
- Varma, *P. S.*, and Rao, *V. A.*, reduction of *o*-nitrotoluene, *A.*, 467.
- Varma, *P. S.*, and Sharma, *S.*, nitration. IV. Nitration by means of a mixture of nitrosulphonic and fuming nitric acids, *A.*, 1432.
- Varnau, *B. H.*, and Wayne, *T. B.*, ultrafine, soft, granulated sucrose sugar, (*P.*), *B.*, 436*.
- Vašátko, *J.*, testing [with beet syrup] the activity of decolorising carbons with the Linsbauer-Vašátko filtration apparatus, *B.*, 1125.
- influence of rate of filtration on the decolorisation of sugar solutions by a layer of active carbon, *B.*, 1126.
- Vasilevski, *V. V.* See Ipatiev, *V. N.*
- Vass, *C. C. N.*, and McSwiney, *B. A.*, fastness of dyes to perspiration. I. Composition of human perspiration, *A.*, 1309.
- Vass, *Z. von.* See Freiburger, *M.*
- Vassiliev, *A.*, and Matveev, *N.*, gravimetric determination of potassium as potassium sodium cobaltinitrite, *A.*, 1146.
- Vassiliev, *N. A.*, Conradson carbon determination, *B.*, 596.
- Vassiliev, *N. A.*, and Zhirnova, *L. V.*, crude oil resins, *B.*, 891.
- Vassiliev, *P. I.*, purification of drinking water with sodium aluminate, *B.*, 1132.
- Vassiliev, *V.*, hydrogenation of linseed oil, *B.*, 155.
- Vasterling, stability of 0.1*N*-sodium chloride, and other matters pertaining to volumetric analysis, *A.*, 182.
- Vaubel, *W.*, benzimeter, *B.*, 6.
- comparison of cacao butter and its substitutes, *B.*, 109.
- Vaudin, *L.*, rôle of succinic acid in biology, *A.*, 493.
- Vaudin, *L.*, and Javillier, *M.* [with Allaire, *H.*, and Schirmer, *M.*], liver-chemistry during inanition, *A.*, 1470.
- Vaughan, *A. H.* See Cope, *F. T.*
- Vaughan, *W.* See Kriegsheim, *H.*
- Vaughan, *W. E.*, and Noyes, *W. A., jun.*, photochemical studies. XI. Quantum efficiency of ozone formation in the fluorite region, *A.*, 433.
- Vaughen, *J. V.* See Clusius, *K.*
- Vaugin, (*Mlle.*) *M.* See Bousset, *R.*
- Vaupel, *O.* See Schmid, *E.*
- Vavilov, *S. I.*, new properties of the polarised fluorescence of liquids, *A.*, 16.
- Vavon, *G.*, and Guédon, *A.*, *cis-trans*-isomerism and steric hindrance. XII. 2-Butylcyclohexanols, *A.*, 1428.
- Vavon, *G.*, and Mitchovitch, *V. M.*, *cis-trans*-isomerism and steric hindrance. XI. 2-Ethylcyclohexanols, *A.*, 206.
- Vavrinecz, *G.*, analyses of minerals from Reesk, Hungary, *A.*, 734.
- determination of the sugar content of carbonatation sludge, *B.*, 388.
- Vazquez-Garriga, *J.* See Pondal, *I. P.*
- Veazey, *W. R.*, and Dow Chemical Co., insecticidal composition, (*P.*), *B.*, 342.
- Vébra, *J.* See Brus, *G.*
- Vecchiotti, *L.*, formation of a closed, heterocyclic ring containing mercury atoms, *A.*, 1458.
- Vecchiotti, *L.*, and Zanetti, *G.*, chemical reactions induced by light, *A.*, 1180.
- Vedenski, *N.* See Borissovski, *V.*
- Veedip, Ltd. See Sutton, *S. D.*
- Veen, *A. G. van.* See Romburgh, *P. van.*
- Veenemans, *C. F.* See Penning, *F. M.*
- Vegard, *L.*, variations of intensity distribution of the auroral spectrum and the possible influence of sunlight, *A.*, 5.
- structure of the form of solid nitrogen stable below 35.5° Abs., *A.*, 19.
- new types of emission spectra, *A.*, 126, 267.
- structure and power of light emission of solid carbon monoxide, *A.*, 665.
- spectra of solidified gases and their interpretation by the atomic theory, *A.*, 1332.
- Vegard, *L.*, and Keesom, *W. H.*, luminescence from solidified gases at the temperature of liquid helium, *A.*, 664.
- Vegetable Oil Machinery Syndicate, Ltd., and Moores, *J.*, production of oil from palm fruit and other oil seeds, (*P.*), *B.*, 675.
- Veibel, *S.*, nitration. I. Nitrosation of phenol. II. Nitration of phenol, *A.*, 1033.
- nitration. III. Nitration of *o*- and *m*-cresol, *A.*, 1429.
- nitration. IV. Mechanism of nitration of phenol, *A.*, 1573.
- Veibel, *S.*, and Simesen, *M. H.*, preparation of methyl ethers of quinoneoximes, *A.*, 1587.
- Veil, (*Mlle.*) *S.*, [magnetisation of] the mixed oxide of nickel and cobalt and the corresponding ferrite, *A.*, 281.
- microphotometric study of the Liesegang rings, *A.*, 1516.
- Veitch, *F. P.* See Smith, *W. C.*
- Velde, *H.* See Magnus, *A.*
- Velde, *J. van de*, secretion of dextrose under the influence of phosphates and sulphates, *A.*, 1209.
- Veldhuizen, *H. van*, the Debye-Hückel theory and its experimental testing, *A.*, 1372.
- Veler, *C. D.*, Thayer, *S.*, and Doisy, *E. A.*, preparation of crystalline ovarian follicular hormone: theelin, *A.*, 1069.
- Veler, *C. D.* See also Doisy, *E. A.*
- Veleschinie, *A. D.* See Teletov, *J. S.*
- Velikovski, *A. S.*, and Nifontova, *S. S.*, petrolatums from Surakhani crude oil, *B.*, 597.
- Velikovski, *A. S.* See also Nametkin, *S. S.*
- Vellard, *J.*, and Penteado, *J.*, action of ultra-violet rays on venoms, *A.*, 1472.
- Velluz, *L.*, effect of soaps on the toxicity of alkaloids (crypto-alkaloids), *A.*, 247.
- Vencov, *S.*, hydrogen spectra obtained by electronic collision in a mixture of hydrogen and mercury vapour, *A.*, 123.
- Venezia, *M.* See Traetta-Mosca, *F.*
- Venikov, *L.*, analysis of antifiction alloys, *B.*, 911.
- Venino, *C. A.*, and Azzoni, *A.*, leather manufacture, (*P.*), *B.*, 473.
- Venkataraman, *K.*, new synthesis of dicinnamoylmethane, *A.*, 779.
- Venkatesachar, *B.*, fine structure of spectral lines in relation to selective absorption, *A.*, 1077.
- Venkatesachar, *B.*, and Sibaiya, *L.*, Raman spectra in atmospheres surrounding metallic arcs, *A.*, 14.
- Venkateswaran, *S.*, Raman effect in liquid pyridine, *A.*, 275.
- Raman spectra of the mercaptans, *A.*, 1345.
- Raman effect in organo-metallic and heterocyclic compounds, *A.*, 1345.
- Venkateswaran, *S.*, and Bhagavantam, *S.*, Raman spectra of some aldehydes and of mesitylene, *A.*, 1090.
- Raman spectra of aliphatic amines and alcohols, *A.*, 1345.
- Venkateswaran, *S.* See also Bhagavantam, *S.*
- Venn, *R. J.* See Stewart, *R. F.*
- Ventre, *E. K.*, cleaning of filter sand, *B.*, 122.
- Venugopalan, *M.*, and Rangaswami, *M.*, properties of shellac films. I. Resistance of shellac films from various varnishes to action of water and chemicals, *B.*, 1038.
- Venugopalan, *M.* See also Rangaswami, *M.*
- Venus-Danilova, *E.* See Danilov, *S.*
- Venuto, *L. J.* See Wiegand, *W. B.*
- Venzke, centrifuges for drying [solids] and separating [liquids], *B.*, 310.
- Verbeelen, *A.* See Vande Velde, *A. J. J.*
- Vereruyse, *J.*, Pomiankowski, *F.*, and Marnette, *E.*, copper alloys, (*P.*), *B.*, 198.

- Verda, D. J., Burge, W. E., and Green, F. C., stimulating effect of testicular substance on sugar metabolism, A., 505.
- Verder, E. See Norton, J. F.
- Verein für Chemische Industrie Akt.-Ges. See Walter, H.
- Verein für Chemische & Metallurgische Produktion, dyeing animal materials, (P.), B., 237.
- preparation of anhydrous chlorides of aluminium, iron, etc., (P.), B., 253.
- separation of phosphorus from phosphorus vapours, (P.), B., 325.
- pickling of iron and steel, (P.), B., 669.
- Vereinigte Aluminium-Werke Akt.-Ges., acoustic castings of aluminium or its alloys, (P.), B., 289.
- manufacture of aluminium or aluminium alloy wires, (P.), B., 720.
- production of [crystalline] aluminium oxide, (P.), B., 818.
- removal of gases from molten light metals such as aluminium and its alloys, (P.), B., 953.
- casting light metals, especially aluminium and aluminium alloys, (P.), B., 1076.
- Vereinigte Chemische Werke Akt.-Ges., Schmidt, F. L., and Hoyer, E., splitting of oils and fats under pressure, (P.), B., 203.
- Vereinigte Glanzstoff-Fabriken Akt.-Ges., manufacture of very fine viscose silk threads in an acid spinning bath, (P.), B., 53.
- manufacture of fine viscose filaments, (P.), B., 279.
- separation of sodium sulphate from sulphuric acid, (P.), B., 323.
- Vereinigte Glühlampen & Elektrizitäts Akt.-Ges., manufacture of oxide cathodes for discharge tubes, (P.), B., 723.
- manufacture of oxide, sulphide, and haloid cathodes for electric-discharge devices, (P.), B., 774.
- photoelectric cell, (P.), B., 776.
- Vereinigte Stahlwerke Akt.-Ges., manufacture of iron and steel, (P.), B., 331.
- increasing the elongation limit and tensile strength of low-carbon steels, (P.), B., 719.
- [copper-chromium] alloy steels, (P.), B., 719.
- production of a high lustre on articles made of stellite alloys, (P.), B., 720.
- continuous blasting of granular or briquetted mixtures of ores and metallurgical products in thin layers, (P.), B., 720.
- [corrugated] refractory brick for heat-exchange apparatus, (P.), B., 846.
- production of iron carbonyl, (P.), B., 1028.
- improving the physical properties of steel containing copper, (P.), B., 1114.
- Vereinigte Stahlwerke Akt.-Ges., and Schreiber, E., gas-fired metal-heating furnaces, (P.), B., 951.
- Veremeenco, P. See Mezzadrol, G.
- Verešinov, A., Vinogradov, M., Vinogradov, T., and Diakov, M., influence of infusoria on the digestion of ruminants, A., 1815.
- Verschlagin, L. See Schukarev, A.
- Veress, M., human brain, A., 362.
- Veress, Z., apparatus for purifying gases, A., 1151.
- Vernoux, S., detection of nitrites in water, B., 38.
- Verhave, T. H., preparation of acetylmethylcarbinol [methyl α -hydroxyethyl ketone] and diacetyl [by fermentation], (P.), B., 1044.
- [microbiological] preparation of 2:3[β]-butylene glycol from carbohydrates, (P.), B., 1088.
- Verhein, A., vacuum-jacketed Twisselmann extractor, A., 446.
- Verigo, A. B., determination of the content of radioactive substances mixed with inactive matter by means of α -rays, A., 129.
- Verity, C. H., clouderising coal dust for power purposes, (P.), B., 807.
- Verkade, P. E., and Coops, J., jun., elimination of systematic errors in older thermochemical data, A., 163.
- oscillation phenomena. IV. M. p. and solubility at 25° in water and in benzene of a series of *n*-monoalkylmalonic acids, A., 348.
- oscillation phenomena. V. Solubility of a number of dicarboxylic acids of the oxalic acid series in various solvents, A., 850.
- metabolism of diabetics. I. "Intarvin" and other fats derived from acids having an odd number of carbon atoms, A., 1206.
- heat of combustion of salicylic acid, A., 1252.
- Verkade, P. E., Coops, J., jun., Verkade-Sandbergen, (Frau) A., and Maan, C. J., thermochemical studies of cycloparaffins and their derivatives; experimental data for 5- and 6-membered cyclic diacetates, XVII, and dibenzoates, XIX., A., 337.
- Verkade-Sandbergen, (Frau) A. See Verkade, P. E.
- Verkhovtzev, M. See Tschizhevsky, N.
- Verleger, H., Thomson effect in metal crystals, A., 985.
- Verley, A., substitution of alkyl groups in the aromatic nucleus, (P.), B., 550*.
- Verma, J. K., and Dhar, N. R., kinetics, temperature coefficients, and quantum efficiency of photochemical reactions between bromine and propyl, isopropyl, or butyl alcohol in radiation of different wave-lengths, A., 46.
- relation between intensity of light and velocity of photochemical reactions between bromine and propyl, isopropyl, or butyl alcohols, A., 46.
- Vermaas, N. See Böeseken, J.
- Vermeulen, A., and Adriaens, L., unsaturated aliphatic nitriles, A., 75.
- Vermenlen, D. See Ornstein, L. S.
- Vermoreken, O. A., kilns or ovens for firing pottery, earthenware, etc., (P.), B., 1111.
- Vernadsky, V., natural waters rich in radium, A., 886.
- radium in aquatic organisms, A., 1308.
- Vernay, J. B., filtering apparatus, (P.), B., 223.
- Verne, J., histochemical study of aldehyde substances produced by fat metabolism, A., 810.
- Vernitz, L., phosphorescent compounds of temporary action, A., 176.
- Vernon, M. A. See Lowry, T. M.
- Vernon, W. H. J., and Whitty, L., open-air corrosion of copper. II. Mineralogical relationships of corrosion products, B., 992.
- Verola, P., [apparatus for] colour photography, in particular, cinematography, (P.), B., 533.
- Véronnet, A., theory of formation of large ions and droplets, A., 128.
- Verpeaux, P. E., and Union Chimique Beige, Société Anonyme, coke ovens, (P.), B., 310.
- heating of coke ovens, etc., (P.), B., 448.
- Verschaffelt, J. E., thermal expansion of liquids according to van der Waals, A., 144.
- Versluis, J., cause of periodicity generally occurring with rising mixtures of gas and liquid, A., 1106.
- Verstynen, C. F. M., viscose spinning-bath solutions, B., 609.
- Vertu, L., simultaneous production of light oils, smokeless briquettes, and coke, B., 1010.
- Vervuert, G. See Gelsenkirchener Bergwerks A.-G.
- Verzár, F., and Kúthy, A. von, physiological significance of hydrotropy, A., 1616.
- Verzár, F. See also Benesik, F.
- Veselovskii, A. A. See Efremov, N. N.
- Vesely, V., composition of commercial stearine and oleine, B., 518.
- Vesely, V., and Chudóžilov, L. K., synthetic gadoleic and selacholic acids, A., 451.
- Vesely, V., and Pač, J., heteronuclear nitro- and amino-derivatives of 2-methylnaphthalene, A., 1173.
- Vesely, V., Štursa, F., Olejník, H., and Rein, E., bromo- and dinitro-derivatives of 1-methylnaphthalene, A., 593.
- Veshnjakov, S. See Lipschütz, A.
- Vesterlid, A. See Ingeberg, H. C. M.
- Vesuvius Crucible Co. See Arensburg, F. L.
- Vetter, W. See Simon, A.
- Vetukhova, A. A. See Matzko, F. F.
- Vher, O. I. See Ageev, N. V.
- Viallet, J. See Textiles (New Process), Ltd.
- Viaud, P. See Koetschet, J.
- Vicars, Ltd., T. & T., and Crosland, E. M., manufacture of biscuits, (P.), B., 695.
- Vickers, A. E. J., influence of oxidising and reducing atmospheres on refractory materials. III. Experiments with a refractory mixture containing added amounts of colloidal ferric hydroxide, B., 1066.
- Vickers-Armstrong, Ltd., Machin, W., and Goudielock, W. B. O'B., copper alloys [hardened with iron silicide], (P.), B., 1115.
- Vickers-Armstrong, Ltd., and Parker, L. D., cooling apparatus for pulverulent or granular material, (P.), B., 2.
- Vickers, Ltd. See Lucas, O. D.
- Vickery, H. B., and Block, R. J., basic amino-acids of wool, A., 632.

- Vickery, H. B., and Leavenworth, C. S., behaviour of cystine with silver salts, A., 754.
- Vickery, H. B. See also Pucher, G. W.
- Victor Chemical Works, Lindberg, N. C., and McDonald, G. A., manufacture of crystalline phosphates, (P.), B., 817.
- Victor X-Ray Corporation, and Wantz, J. B., oil-immersed X-ray apparatus, (P.), B., 825.
- Victor X-Ray Corporation. See also Brit. Thomson-Houston Co., Ltd.
- Vidal, A. See Ranedo, J.
- Vidal, R., water-soluble hydrocarbon soaps, (P.), B., 292.
- black sulphur dyes, (P.), B., 503.
- bleaching of vegetable fibres, (P.), B., 505.
- Vidin, E. K. See Girshovich, N. G.
- Vielle, J. See Chapman, A. E., and Robertson, J. R.
- Viets, F. H., Weiskopf, C. H., and International Precipitation Co., [mounting of electrodes in] apparatus for electrical precipitation [from gases], (P.), B., 336.
- Vieu, C. (Comp. des Mines de Vicoigne, Noeux & Droconrt), and Mourgeon, L., manufacture of smokeless fuel, (P.), B., 851.
- Vigfusson, V. A. See Thorvaldson, T.
- Vigneul, M. See Richon, L.
- Vignos, J. C., pickling process [for iron and steel], (P.), B., 913.
- Vignos, J. C., and Rubber Service Laboratories Co., preservation of metallic surfaces, (P.), B., 149.
- Vilain, A. A. J., and Vilain, C. A. A. (Vilain Frères), fertilisers, (P.), B., 785.
- Vilain, C. A. A. See Vilain, A. A. J.
- Vilain Frères. See Vilain, A. A. J.
- Vilbrandt, F. C. See Eskew, W. E.
- Villard, (Mlle.) H. See Kohn-Abrest, E.
- Villard, P., reduction of sodium hydroxide by hydrogen, A., 1006.
- Villaret, M., Justin-Besançon, L., and Even, R., effect of acetylcholine on the pancreatic secretion, A., 369.
- Villars, D. S., photochemical dissociation of triatomic molecules; hydrogen cyanide, A., 305.
- nature of activation heats; calculation of heat of activation from band spectra data, A., 832.
- equilibrium constants of reactions involving hydroxyl, A., 1121.
- Villars, D. S., and Condon, E. U., predissociation of diatomic molecules from high rotational states, A., 831.
- Villez, P. A. H., presses for extracting liquids from solid materials, (P.), B., 307.
- Villiaume, E. L. See Cori, C. F.
- Vilnyanski, Y. E. See Urazov, G. G.
- Vincent, H., comparative cryptotoxic power of the sodium salts of the fatty acids, A., 1479.
- Vincent, V., and Herviaux, J., sodium in crops, B., 962.
- Vincent-Daviss, C. A., transverse breaking strength of refractories, B., 145.
- Vinet, E. See Moreau, L.
- Vining, D. C. See Gibson, C. S.
- Vink, T., [manufacture of] cheese, (P.), B., 484.
- Vinogorov, G. See Petrenko, G. J.
- Vinogradov, A. P., oxidation of quinol at diminished oxygen tensions, A., 249.
- Vinogradov, A. P., and Dedjulin, I. M., oxidation of tyrosine at diminished oxygen tensions, A., 249.
- Vinogradov, M. See Vereninov, A.
- Vinogradov, T. See Vereninov, A.
- Vinogradova, I. See Rutovski, B. N.
- Vinogradski, S., synthesis of ammonia by soil *Azotobacter*, B., 435.
- Virabyantz, R. A., perm crude oil, B., 890.
- Virck, P. See Gen. Aniline Works, Inc.
- Virginia Smelting Co. See Binns, F. W.
- Virtanen, A. I., lactic acid production in tumours, A., 365.
- fermentation taste of butter, B., 165.
- composition of cows' milk in Finland, B., 964.
- Virtanen, A. I., Karström, H., and Turpeinen, O., fermentation of dihydroxyacetone, A., 114, 644.
- Virtanen, A. I., and Lundmark, E., degradation of caseinogen by lactic acid bacteria, A., 644.
- Virtanen, A. I., and Peltola, E., fermentation of glyceric acid, A., 644.
- Virtel, S., determination of the resistance law for submicroscopic platinum particles of the order of 10^{-5} cm., A., 392.
- Viry, P., [automatic regulation of] electric induction heating installations, (P.), B., 380.
- Visco, S., protein ration and energy ration, A., 951.
- hysteresis in the electrical conductance of colloidal solutions, A., 993.
- action of the latex of *Ficus carica* on proteins, A., 1317.
- Viskont, K. I., and Alimarin, I. P., determination of water in micas, A., 310.
- Visser, G. H., optical dissociation of diatomic molecules in gases and vapours. I., II., and III., A., 1093.
- optical dissociation of caesium iodide, A., 1330.
- Vit, L. See Kondakov, I. L.
- Vita, N. See Padoa, M.
- Vitacream, Ltd. See Bergsvik, A.
- Vitale, D., emission spectrum of magnesium, A., 264.
- Vitamin Food Co., Inc. See Prince, R. K.
- Vitner, (Mlle.) M. See Ionesco-Matiu, A.
- Vitoria, A. P., points of fusion and of decomposition in the system $\text{KClO}_3\text{-NaClO}_3$, A., 293.
- Vitoria, A. P. See also Moles, E.
- Vitretrax Corporation. See Curtis, T. S.
- Vitte, G., toxicological investigation of some barbituric acid derivatives and their *post-mortem* transformation into thiocyanic acid, A., 954.
- methods for investigating small quantities of mercury in organic mixtures, A., 1072.
- Vivas, F. S., and International Fireproof Products Corporation, cleanser [for fabrics], (P.), B., 139.
- fireproofing of cellulose, (P.), B., 505.
- fireproof wall-board, (P.), B., 864.
- Vivatex Processes, Inc. See White, C. B.
- Vlach, B. See Zahradnick, J.
- Vladesco, R., disintegration of animal tissues by nitric acid, A., 122.
- Vladesco, R. See also Simici, D.
- Vladimirov, G. E., colloidal properties of the myosin and myostromin of heart-muscle, A., 1203.
- embryos. IV. Accumulation of glycogen in the bodies of developing chick embryos. V. Accumulation of glycogen in the liver of developing chick embryos, A., 1313.
- Vladimirov, G. E., Galvialo, M. J., and Makarova, K. A., glutathione: preparation and properties of the thermostable oxidation-reduction system, A., 1604.
- Vladimirova, E. A. See Martinson, E. E.
- Vlăs, F., and Kyvelos, N., spectral properties of a benzoate as a function of the concentration of neutral salts, A., 689.
- Vobach, A. C., and Sinclair Refining Co., refining of hydrocarbons, (P.), B., 48.
- Vobach, A. C. See also Tift, T. de C.
- Voce, E., silicon-copper alloys and silicon-manganese-copper alloys, B., 992.
- Vocke, F., synthesis of α -methyl- α' -carboxyglutaric acid, A., 1407.
- Vocke, F. See also Wieland, H.
- Voegtlin, C. See Kahler, H., and Rosenthal, S. M.
- Völker, H. See Remy, T.
- Voellmy, H., apparatus for determining refraction and dispersion, (P.), B., 1051*.
- Voerkel, F. See Metallges. A.-G.
- Voerster, T. See Rassow, B.
- Voet, R., synthesis of betaincaldehyde (synthetic muscarine?), A., 199.
- non-identity of natural muscarine with synthetic betaincaldehyde, A., 1563.
- Voetter, E. See Gen. Aniline Works, Inc.
- Vogel, A., prevention of excess voltages in electrolytic cells for the electrolysis of water, (P.), B., 22.
- Vogel, A. I., and Oommen, M. P., synthesis of cyclic compounds. VI. 3- and 4-Methyleyclohexanones, A., 777.
- Vogel, A. I. See also Oommen, M. P.
- Vogel, F., treatment of residues from [the working-up of lead ores by] the Harris process, B., 244.
- Vogel, H., inulin, A., 198.
- Vogel, H. See also Pictet, A.
- Vogel, H. U. von. See Klemm, W.
- Vogel, O. See Bauer, O.
- Vogel, R., system iron-phosphorus-carbon, B., 243.
- Vogel, R., and Pocher, W., system copper-oxygen, A., 161.
- Vogel, R., and Tonn, W., ternary system iron-nickel-sulphur, B., 910.
- Vogel, W., water content of solid vegetable tannin extracts, B., 573.
- Vogel, W. L., and Prutzman, P. W., mercury-bromine derivatives of fluorescein, (P.), B., 839.

- Vogelbusch, W., evaporation, distillation, or similar apparatus, (P.), B., 3.
- Vogel-Jorgensen, M., burning of cement and similar substances in rotary kilns, (P.), B., 192.
- Vogrin, A. See Kreemann, R.
- Vogt, A. See Karrer, P.
- Vogt, C. W., cooling or freezing cream or other liquids, (P.), B., 645.
- Vogt, C. W., congealing of liquid or semi-liquid substances, (P.), B., 694.
- Vogt, C. W., and Vogt Instant Freezers, Inc., continuously producing ice-cream and other plastic substances, (P.), B., 838.
- (A) process, (B) machine, for treating materials, (P.), B., 887.
- Vogt, G., determination of hydrogen cyanide in pharmaceutical preparations, B., 639.
- Vogt, M., isolation of methylglyoxal as intermediate substance in glycolysis, A., 499.
- comparison of the effect on the circulation and the narcotic action of barbituric acid derivatives, A., 1315.
- Vogt, R. R. See Nieuwland, J. A.
- Vogt, W., electrical and optical properties of semi-conductors. III. Electrical determinations with cuprous oxide, A., 1504.
- Vogt, W. W., artificial ageing for rubber, B., 70.
- Vogt Instant Freezers, Inc. See Vogt, C. W.
- Vogtherr, H., manufacture of [radio-electric] crystal detectors, (P.), B., 516.
- Vohrer, H. See Holde, D.
- Voicu, J., and Axente, (Mlle.) E., combination of sucrose with boric acid; variation of acidity of boric acid in the presence of sugar, A., 1371.
- Voicu, J., and Lungulescu, E., effect of small and large amounts of humus on the fixation of nitrogen by *Azotobacter chroococcum*, in presence of various glucosides, mannitol, and calcium malate, A., 1478.
- influence of humus on nitrogen-fixing organisms; *A. chroococcum* and *Clostridium pastorianum* in impure mixtures; biochemical action of humus, A., 1478.
- Voigt, A. See Geilmann, W.
- Voisin, U. B., manufacture of alumina and salts of aluminium from bauxites or other aluminous products, (P.), B., 188.
- elimination of the iron contained in bauxites or other aluminous ores, (P.), B., 332.
- Voit, K., determination of carbon in urine, A., 239.
- Voit, K. See also Jung, G.
- Voiteur, J. U. M., gas producer, (P.), B., 804.
- Voituron, E. See Soc. d'Études Scientifiques et d'Entreprises Industr.
- Vokes, C. G., air filters, (P.), B., 445, 695.
- Volarovich, M., viscosity of viscous liquids, A., 146.
- Volbehr, K., ensilaging of green fodder rich in protein with special reference to the hydrochloric acid process, B., 300.
- Volbert, F., absorption of the silver ion in the ultra-violet of short wave-length, A., 1342.
- Volf, M. See Shevilyakov, V.
- Volkovich, S. I., production of ammonium phosphate, B., 611.
- Volkovich, S. I., and Berlin, L. E., extraction of phosphoric acid from low-grade phosphorites with a mixture of sulphuric acid and ammonium sulphate, B., 903.
- Volkovich, S. I., and Kamzolkin, V. P., [conversion of crude phosphates into concentrated fertilisers], B., 922.
- Volkovich, S. I., Kamzolkin, V. P., and Sokolovskii, A., manufacture of ammonium sulphate from phosphogypsum, B., 1108.
- Volkovich, S. I., and Remen, R. E., hygroscopicity of ammonium nitrate and its mixtures, B., 321.
- Volkert, G. See Donle, H. L.
- Volkman, H., natural optical activity of liquids, A., 1501.
- Volkman, W., shape of porcelain evaporating basins, casseroles, and crucibles, A., 65.
- Volkova, Z. V., viscosity and diffusion in glycerol-water mixtures. I. and II., A., 146, 679.
- Volkringer, H., band spectra of zinc vapour, A., 124.
- continuous and band spectra of zinc and mercury vapours, A., 1488.
- Vollenbruck, O. See Bauer, O.
- Vollhase, E., Steinbock, H. J., and Danielsen, E., margarine containing egg-yolk, B., 438.
- Vollmann, H. See General Aniline Works, Inc., and Kränzlein, O.
- Vollmer, H., creatine and phosphoric acid content of various portions of the heart, A., 362.
- Vollmer, H. See also Kindt, B.
- Volmer, M., and Kummerov, H., thermal decomposition of nitrous oxide, A., 1255.
- Volmer, M. See also Erdey-Grúz, T., and Thalinger, M.
- Volotschneva, E. P., spontaneous crystallisation of polymorphous substances from the supercooled state, A., 846.
- Volovik, A. B., influence of the biological value of albumin on nitrogen metabolism. III., A., 1060.
- nitrogen metabolism on a diet without milk, A., 1060.
- Volpato, V., production of gold and silver [from scrap iron], (P.), B., 618.
- Volschinski, V. A., Gahn, G. S., and Krestovnikov, A. N., action of gymnastic exercises on the gas exchange, heart, vascular system, and blood, A., 1470.
- Volskaya, A. N., nitrogen fertilisers, B., 734.
- Volta, A. D., chlorohemoglobin reaction in cadaverous tissues, A., 1306.
- Volwiler, E. H., and Tabern, D. L., 5:5-substituted barbituric acids, A., 788.
- Vondráček, R., velocity of solution of zinc-tin alloys in acids, A., 169.
- assay of calcium carbide and Czechoslovakian standards, B., 659.
- Vondrák, J., determination of sugar in the beet, B., 925.
- Vondrák, J. See also Staněk, V.
- Vonwiller, O. U., intensity measurements in the arc spectrum of thallium, A., 652.
- Voogd, J. See De Haas, W. J.
- Voorhees, V., and Standard Oil Co., decolorising and colour-stabilising hydrocarbon oil, (P.), B., 702.
- Vorbach, K. See Curtius, T.
- Vorclone Corporation. See Partlow, A.
- Voříšek, J., titration of antimonious compounds by permanganate, A., 1150.
- Vorländer, D., optically void crystalline liquids and the different kinds of crystalline liquids, A., 846.
- amorphous and crystalline resins and varnishes, B., 293.
- Vorländer, D. [with Ritter, O.], direction of carbon valencies in methane derivatives, A., 82.
- Vorländer, D. [with Schroeder, E., and Zeh, W.], direction of the carbon valencies in benzene derivatives, A., 82.
- Vorländer, D., Fischer, Erich, and Wille, H., *s*-triphenylbenzene; amorphous resins and lacs, A., 79.
- Vorländer, D., and Fischer, Josef, uniaxial orientation of crystalline liquids, A., 1506.
- Vorländer, D., and Lainan, A., oxidation of ammonium sulphite to ammonium sulphate with air in the presence of mineral salts, A., 41.
- preparation of ammonium sulphate and nitrogen, B., 860.
- Vorona-Spirt, (Mme.) C. See Bertrand, G.
- Voronkov, G. P., and Pokrowski, G. I., absorption capacity of some substances for light of various wave-lengths as a function of the particle size, A., 289.
- Voronov, A. I., and Tvertzin, V. S., asphalt tar from Grozni mixed-base crude oil, B., 130.
- Voronov, S. M., inverse segregation in duralumin, B., 16.
- Voronova, E. A. See Zviaginstsev, O. E.
- Voroschcov, N. N., and Kogan, J. M., action of sulphurous acid and its salts on quinoline derivatives, A., 1445.
- Voroschcov, N. N. See also Tschitschibabin, A. E.
- Vorster, De W., penetrative power of the bactericidal rays in the ultra-violet as emitted by carbon, A., 377.
- Vosburgh, W. C., and Lackey, O. N., mercury-basio mercury sulphate voltaic cell, A., 707.
- Vose, C. E. See Corson, B. B.
- Voskresenska, N. K., system sodium chloride-magnesium sulphate—water at 35°, A., 1523.
- Vosnessenski, S. A., nitrogen sulphide. III., A., 178.
- nitrides, A., 178.
- Vosnessenski, S. A., and Artemova, L. P., exchange of cations in the system aqueous soap solution-calcium permutite, A., 862.
- Vosnessenski, S. A., Lasarev, V., and Pereverseva, T., desorption of electrolytes in the coagulation of suspended particles, A., 33, 153.
- Vosnessenski, S. A. See also Schilov, N. A.
- Voss, A. See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Voss, H. E. See Loewe, Siegfried, and Luchsinger, J.
- Voss, W., and Guttmann, R., preparation of alkali salts of amino-acids, A., 1170.
- Voss, W., Guttmann, R., and Klemm, L., diglutamyl-*l*-cystine. I. Peptides of glutamic acid, A., 898.

- Voss, W. A., composition of benzol from gas manufactured in vertical retorts, B., 934.
- Vossen, B. See Gen. Aniline Works, Inc.
- Votoček, E., saccharinose and saccharinohexoses, A., 581.
- Votoček, E., and Kucerenko, V., fucose (*l*-galactomethylose) and *epifucose* (*l*-talomethylose) series, A., 325.
- Votoček, E., and Malachta, S., 8-ketorhammonic acid; derivatives suitable for identification, A., 66.
- Votoček, E., and Valentin, F., third sugar constituent of scammonin, A., 71.
- rhodoose (*d*-galactomethylose) and *epirhodoose* (*d*-talomethylose) series, A., 326.
- Votoček, E., Valentin, F., and Rác, F., rhamnose (mannomethylose) derivatives, A., 894.
- Vournazos, A. C., multimolecular antimony bromide compounds, A., 1388.
- Vovk, B., effect of various doses of phosphorite in presence of various nitrogenous fertilisers, B., 387.
- Vowler, J. N. See Parker, R. G.
- Vozdviženski, G. S., and Gerasimov, A. F., kinetics of the reaction of reduction of arsenic anhydride in hydrochloric acid solution by phospho-nitrous [hypophosphorous?] acid, A., 865.
- Vrana, K. See Micka, J.
- Vrede, J., crystal detectors, A., 674.
- Vrevski, M. S., vaporisation of binary mixtures. II. Theory of vaporisation of binary mixtures, A., 26.
- evaporation of binary mixtures. III., A., 404.
- Vrevski, M. S., and Faermann, G. P., vaporisation of binary mixtures. III. Determination of heat of vaporisation of aqueous solutions of hydrogen chloride, A., 26.
- evaporation of binary mixtures. II., A., 404.
- Vuistetravski, S. A., analysis of American crude oils, B., 357.
- Vukadinović, M., nitrocellulose service powders, B., 833.
- Vyas, N. D., method of increasing the manurial value of bone phosphate, B., 877.
- Vysoky, A., pyrogenic decomposition of methane, A., 735.
- W.
- Wacek, A. von, methylation of beechwood and hydrolysis of the methylated product; beechwood lignin, A., 458.
- Wachsmuth, E. See Fraenkel, W.
- Wachtel, W. See Brit. Glues & Chemicals, Ltd.
- Wacker, A. See Biesalski, E.
- Wacker, W. See Stollé, R.
- Wacker Gesellschaft für Elektrochemische Industrie G.m.b.H., A., degreasing of animal fibres, (P.), B., 10.
- concentration of acetic acid, (P.), B., 95.
- manufacture of ketonic acid esters, (P.), B., 275.
- preparation of alkali metals by fusion electrolysis, (P.), B., 722.
- manufacture of cellulose ethers, (P.), B., 900.
- manufacture of acetylcellulose in the form of bands or threads, (P.), B., 985.
- carrying out ester condensations [synthesis of acetoacetic esters], (P.), B., 1015.
- manufacture of aluminium alcoholates containing aluminium chloride, (P.), B., 1065.
- manufacture of alkali ethylates [ethoxides], (P.), B., 1109.
- Wacker Gesellschaft für Elektrochemische Industrie G.m.b.H., A., and Gruber, W., manufacture of highly viscous acetylcellulose soluble in acetone, (P.), B., 414.
- Wacker Gesellschaft für Elektrochemische Industrie G.m.b.H., A., Kaufner, F., and Schwaebel, F. X., manufacture of dispersions containing copper, (P.), B., 12.
- Wada, C. See Teruuchi, T.
- Wada, I., and Saito, S., separation of elements of the platinum group and their allies, A., 54.
- Wada, K. See Shimura, S.
- Wada, M., a new amino-acid in water-melon (*Citrullus vulgaris*), A., 1224.
- Wadano, M. See Tomoda, Y.
- Waddington, W. B. See Bennett, G. M.
- Wadehn, F. See Glimm, E.
- Wadsworth, A., Maltaner, F., and Maltaner, E., activity of lecithin in blood coagulation, A., 802.
- Wadsworth, J. M., and Universal Oil Products Co., cracking and rectifying petroleum oils, etc., (P.), B., 1102*.
- Wahlert, M., and Ostermann, H., nickel-chromium-copper cast iron ("Nimol"), B., 1113.
- Wael, H., colorimetric determination of minute quantities of dissolved phosphorus in oils, B., 1037.
- Wael, H. See also Baggesgaard-Rasmussen, H.
- Waffenschmidt, H., washing machine for raw materials for shoddy, (P.), B., 761.
- Wagenaar, M., simple apparatus for micro-sublimation under reduced pressure, A., 56.
- microchemical reactions for strychnine, A., 98.
- micro-sublimation under reduced pressure, A., 186.
- microchemistry of brucine, A., 229.
- microscopical, micro-spectroscopical, and quantitative examination of blood, A., 234.
- microchemical reactions for berberine, A., 353.
- microchemical reactions for hydrastine, A., 353.
- microchemical reactions of aconitine, A., 486.
- microchemical reactions for pilocarpine, A., 623.
- microchemical reactions of cocaine, A., 623.
- microchemical reactions of apomorphine, A., 625.
- microchemistry of cytosine, A., 629.
- microchemical reactions of veratrine, A., 796.
- examination of blood, A., 800.
- mummification methods of the Egyptians, A., 946.
- determination of blood [in blood-stained materials], A., 1304.
- quantitative analysis for blood, A., 1606.
- detection of castor bean in feeding-stuffs, B., 35.
- quantitative and qualitative determinations of castor seed press-cake in cattle feed cake, B., 81.
- determination of husk in cocoa and cocoa preparations, B., 215.
- determination of husk in analysis of cocoa, B., 1089.
- Wagenberg, D. See Bergmann, E.
- Wagenfeld, E. See Zipf, K.
- Wagenheim, S. See Jones, T. D.
- Waggaman, W. H. See Memminger, C. G.
- Wagner, A., reactions in the lower part of the [iron] blast furnace, B., 328.
- evaluation and testing of the properties of raw materials and key-products in the iron industry, B., 909.
- Wagner, A., and Bulle, G., investigations on a blast-furnace smelting minette with Saar coke, B., 193.
- Wagner, C., kinetics of the reaction of formaldehyde with hydrogen sulphite and sulphite, A., 38.
- thermodynamic treatment of stationary states in non-isothermal systems. II., A., 1341.
- Wagner, C. L., treatment of waste liquors from the making of paper pulp and similar liquors to generate heat and recover chemicals therefrom, (P.), B., 100.
- alkali recovery from pulp liquors, B., 367.
- Wagner, C. O. See Serck Radiators, Ltd.
- Wagner, C. R., and Hyman, J., gum formation in cracked gasolines, B., 446.
- Wagner, E. See Busch, M.
- Wagner, E. C., purification of acetamide, A., 1420.
- Wagner, E. C. See also McNabb, W. N.
- Wagner, F. H., and Bartlett Hayward Co., centrifugal dust arrestor, (P.), B., 538.
- gas washer, (P.), B., 853.
- Wagner, F. H. See also Bartlett Hayward Co.
- Wagner, Hans, optical method for the detection of substances in mixtures, residues, etc., A., 1263.
- iron oxide pigments and rust prevention, B., 468.
- identification of barytes, quartz, and silicates, B., 903.
- microscopy of the iron oxide pigments, B., 1119.
- Wagner, Hans, and Kesseling, I., effect of the addition of chalk on bright pigments, B., 779.
- Wagner, Hans, and Martz, E., ultramarine blue-white lead mixtures, B., 675.
- Wagner, Hermann, discharges on indigo, thioindigo, and sulphur colours [in printing], B., 416.
- Wagner, Hermann. See also Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Wagner, O., change of cholesterol in autolysis of the liver, A., 1216.
- Wagner, O. See also Hepner, J.
- Wagner, O. H. See Hevesy, G. von, and Koenig, Adolph.
- Wagner, P. B., secondary electrons of high velocity from metals bombarded with cathode rays, A., 269.
- Wagner, R. See Bergel, F.
- Wagner Gesellschaft, G., manufacture of carbon paper, (P.), B., 320.

- Wagner-Jauregg, T. See Kuhn, R.
- Wagstaff, R. A., and American Smelting & Refining Co., smelting furnace and method of smelting, (P.), B., 17.
- Wahl, A., and Jonica, effect of substituents on the shade of derivatives of stilbenesulphonic acids, A., 904.
- Wahl, K., production of multicoloured transparencies or diapositives, especially applicable to kinematograph films, (P.), B., 841.
- Wahl, O. See Gen. Aniline Works, Inc., and I. G. Farbenind. A.-G.
- Wahlin, H. B., motion of electrons in carbon monoxide, A., 1082.
- Waine, A. C. See Hickinbottom, W. J.
- Wainwright, C., heat exchanger, (P.), B., 536.
- Wait, J. F., and National Aniline & Chemical Co., Inc., dehydration of caustic [alkali], (P.), B., 142.
- dehydration of materials [caustic alkali], (P.), B., 764.
- carrying out chemical reactions under pressure; [manufacture of anthracene], (P.), B., 1018.
- Waite, C. P. See Yant, W. P.
- Waite, H. S., production of hydrocarbons of low b. p. from coal, oil, etc., (P.), B., 806.
- Wakeman, A. M., and Morrell, C. A., chemistry and metabolism in experimental yellow fever in *Macacus rhesus*, A., 1310.
- experimental yellow fever in *Macacus rhesus*. II. Nitrogen metabolism, A., 1468.
- Wakeman, R. L. See Underwood, H. W., jun.
- Waksman, S. A., chemical composition of peat, A., 316.
- energy utilisation and carbon assimilation of autotrophic bacteria, A., 818.
- chemical nature of soil organic matter, methods of analysis, and the rôle of micro-organisms in its formation and decomposition, B., 252.
- chemical composition and methods of analysis of peat-forming plants and varieties of peat, B., 933.
- Waksman, S. A., and Diehm, R. A., chemical and microbiological principles underlying the transformation of organic matter in stable manure in the soil, B., 162.
- Waksman, S. A., and Stevens, K. R., system of proximate chemical analysis of plant materials, B., 633.
- methods for determining the nature and abundance of soil organic matter, B., 960.
- Waksman, S. A. See also Tenney, F. G.
- Walbaum, H., and Rosenthal, A., essential oil of green violet leaves, A., 966.
- mignonette oil, A., 966.
- ethereal oil of green violet leaves; Japanese peppermint oil; testing of blossom extracts. I. Sulphur compounds in mignonette extract, B., 82*.
- Walbridge, N. L. See Lutman, B. F.
- Waldbauer, O. See Rona, A.
- Walde, G. See De Paolini, I.
- Walden, P., electrochemistry of non-aqueous solutions. I. Influence of nature of solvent on equivalent conductivity of typical salts. II. Conception of "strong" binary salts and differences between strong and weak electrolytes, A., 296.
- non-aqueous solutions and the conductivity of typical binary salts, A., 421.
- hydrocarbons. III. Conductivity measurements with strong binary salts in ionising media with very small dielectric constants; the Nernst-Thomson rule, A., 703.
- incomplete dissociation of typical binary salts and validity of dilution law for non-aqueous solutions of such salts, A., 995.
- Walden, P., and Gloy, H., hydrocarbons. II. Determinations of the conductivity of binary salts in dichloroethylene and tetrachloroethane, A., 37.
- Waldmann, H., new synthesis in the 1:2-naphthanthraquinone series, A., 1292.
- derivatives of naphthanthraquinone, A., 1292.
- Waldmann, H. [with Mathiowetz, H.], 4-bromophthalic anhydride and derivatives. I. and II., A., 600.
- halogenoquinizarins, A., 1043.
- Waldron, F. B. See Pilkington Bros., Ltd.
- Waldschmidt-Leitz, E., structure of proteins from the basis of enzyme analysis, A., 940.
- Waldschmidt-Leitz, E., and Balls, A. K., specificity of animal proteases. XIX. Aminopolypeptidases from intestinal mucous membrane, A., 957.
- Waldschmidt-Leitz, E., Purr, A., and Balls, A. K., natural activator of catheptic enzymes, A., 1217.
- Waldschmidt-Leitz, E., and Schöffner, A., activation of proteolysis in malignant tumours, A., 634.
- Waldschmidt-Leitz, E., Schöffner, A., Bek, J. J., and Blum, E., specificity of animal proteases. XVIII. Proteolytic system in animal organs, A., 641.
- Wales, F. See Snell, A. M.
- Walker, A. C., and Ernst, E. J., jun., preparation of air of known humidity and its application to the calibration of an absolute-humidity recorder, (P.), B., 643.
- moisture content of compressed nitrogen, B., 659.
- Walker, A. M., total molecular concentration of glomerular urine and of blood-plasma from the frog and from *Necturus*, A., 1205.
- Walker, A. M. See also Bayliss, L. E., and Richards, A. N.
- Walker, B. S., and Alley, O. E., detection of small traces of carbon monoxide in ethylene, B., 36.
- Walker, C. M., McElroy, R. L., and Shepherd, J. E., making composite [steel-cast iron] castings, (P.), B., 18.
- Walker, E., alleged presence of bile salts in normal blood, A., 1462.
- Walker, E. C., process and apparatus for making white lead, (P.), B., 1039*.
- Walker, E. C., and National Lead Co., manufacture of white lead, (P.), B., 156.
- Walker, E. E. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Walker, F., tholeiitic phase of the quartz-dolerite magma of central Scotland, A., 1397.
- Walker, F. T., moulding of artificial stone and imparting a finished surface thereto, (P.), B., 1154.
- Walker, G. E. See Walker & Sons, Ltd., S.
- Walker, G. H. See Heenan & Fronde, Ltd.
- Walker, G. P. See Wiancko, A. T.
- Walker, H. See Colloid-Chem. Forschungs A.-G.
- Walker, H. W., wood preservation, (P.), B., 864.
- Walker, J. C., Link, K. P., and Angell, H. R., chemical aspect of disease-resistance in the onion, A., 262*.
- Walker, J. C. See also Angell, H. R., and Link, K. P.
- Walker, John Charles. See Empire Gas & Fuel Co.
- Walker, J. F. See Davies, T. L.
- Walker, J. H., and Collins, L. F., zeolite water-treating system of the Beacon Street [Detroit] heating plant, B., 168.
- Walker, J. P., refining of lead, (P.), B., 19.
- Walker, J. T. See Fyson, R. C.
- Walker, L. C. See Fairhall, L. T.
- Walker, L. M. See Walker, T. K.
- Walker, M. See Tartar, H. V.
- Walker, O. See Euler, H. von.
- Walker, P. H., ring-and-ball method of test for softening point of bituminous materials, resins, and similar substances, B., 496.
- Walker, R. H., and Brown, P. E., some fermentation characteristics of various strains of *Rhizobium meliloti* and *R. japonicum*, B., 1086.
- Walker, T. K., Hastings, J. J. H., and Aldous, A. G., extra-compression of hops, B., 389.
- Walker, T. K., Walker, L. M., Shaw, H., and Black, R., manufacture of compounds of the general formula $R-CH\langle\begin{smallmatrix} C \\ C \end{smallmatrix}\rangle Ar$, especially derivatives of 1:3-diketohydrindene [indan-1:3-dione], (P.), B., 549.
- Walker, T. K. See also Subramaniam, V.
- Walker & Sons, Ltd., S., Walker, G. E., and Mace, J., dye jigs, (P.), B., 555.
- Wallace, A., and Wallace, W. M., jun., mixing machines, (P.), B., 491.
- Wallace, B. F., Paris-green insecticide, (P.), B., 266.
- Wallace, E. L., and Beek, J., jun., comparison of the quinhydrone and hydrogen electrodes in solutions containing tannin, B., 782.
- Wallace, J. H., jun. See Furman, N. H.
- Wallace, J. I. See Goodeve, C. F.
- Wallace, R. E. See Bonner, W. D.
- Wallace, T., effects of leaching with cold water on the foliage of fruit trees. I. Course of leaching of dry matter, ash, and potash from leaves of apple, pear, plum, black currant, and gooseberry, B., 296.
- manuring of fruit trees. III. Effects of deficiencies of potassium, calcium, and magnesium, respectively, on the contents of these elements, and of phosphorus in the shoot and trunk regions of apple trees, B., 296.
- Wallace, W. M., jun. See Wallace, A.
- Wallace, W. N. W. See Iredale, T.
- Wallace, W. S. See Peale, R.

- Wallace & Tiernan Co., Inc., and Peet, *G. D.*, apparatus for the supply of chlorine or other gas for treatment of liquids, (P.), B., 663.
- Wallace & Tiernan Products, Inc. See Baker, *J. C.*
- Wallow, *E.*, mechanism of the dissolution of cementite in carbon steel and the influence of heterogeneity, B., 1031.
- Walle, *H. van de*, and De Landsberg, *V.*, preparation of *s*-bromidoethylene, A., 1018.
- Waller, *C.* See Brady, *O. L.*
- Waller, *I.*, scattering of short-wave radiation by atoms according to Dirac's theory of radiation, A., 9.
- scattering of radiation by bound and free electrons according to Dirac's relativity mechanics, A., 833.
- "Eigen"-energy of an electron on the quantum theory of scattering, A., 1081.
- Wallerstein, *L.*, and Wallerstein Co., Inc., manufacture of cereal extract, (P.), B., 261.
- degumming of silk, (P.), B., 1146.
- Wallerstein Co., Inc. See Wallerstein, *L.*
- Walling, *E.*, standardisation of radium-*E* preparations in "radium equivalents," A., 517.
- Wallis, *C. W.*, medicinal articles; [coated dried fruit carrying a medicine at the core], (P.), B., 840.
- Wallis, *E. S.*, problem of preparing optically active free radicals, A., 773.
- Wallis, *G. S.*, production of artificial silk threads, (P.), B., 456.
- [means for] coating of fabrics with cellulose derivatives, (P.), B., 555.
- Wallrabe, *G.* See Matthes, *H.*
- Walls, *L. P.* See Morgan, *G. T.*
- Wallschitt, *H.* See Ziegler, *K.*
- Wallwork, *J. A.*, azoic colours and their application to wool and union goods, B., 237.
- Walravan, *F. van*. See Rupe, *H.*
- Walrave, *M.*, and Walrave, *R.*, rendering textiles impermeable and rot-proof, (P.), B., 610.
- waterproofing of fabrics, (P.), B., 657.
- Walrave, *R.* See Walrave, *M.*
- Walsh, *D. F.* See Hanley, *H. R.*
- Walsh, *V. G.*, emulsifying and analogous apparatus, (P.), B., 1136*.
- Walsh, *V. G.*, and Collins, *V. A.*, method and apparatus for making emulsions and mixtures, applicable also for other purposes, (P.), B., 224.
- Walter, *A.* See Inge, (*Miss*) *L.*
- Walter, *C. M.*, tests on a Birmingham [town's gas-fired oven-] furnace installation, B., 689.
- utilisation of town's gas as a fuel in heat-treatment furnaces, B., 1010.
- Walter, *E.*, cause and prevention of cloudiness [in beverages], B., 36.
- volatility of acid and ester in brandy manufacture, B., 636.
- Walter, *E.*, and Nolte, *O.*, nitrogen manuring of fish-ponds, B., 162.
- Walter, *F.*, spreading of electrical waves in metals, A., 402.
- Walter, *H.*, and Verein für Chemische Industrie A.-G., manufacture of santalol compounds, (P.), B., 793*.
- Walter, *L.* See Speyer, *E.*
- Walter, *O.*, apparatus for treating impure water with chemical solutions, (P.), B., 688.
- Walter, *R.*, purification of molten metals, (P.), B., 289.
- sintered alloys containing tungsten compounds, (P.), B., 1115.
- Walters, *E. G.* See Rodebush, *W. H.*
- Walters, *F. M.*, new aids in the ashing of flour, B., 584.
- Walters, *F. M., jun.* See Burns, *Kevin*.
- Walters, *L. S.*, colorimetric determination of nitrogen by direct nesslerisation: a modified Nessler-Folin reagent, A., 1485.
- Waltham System, Inc., refrigeration apparatus, (P.), B., 87.
- Walther, *A.*, and Inge, *L.*, partial breakdown of solid insulators, A., 984.
- Walther, *A.* See Hochberg, *B.*
- Walther, *C.*, viscosity-temperature diagram [of mineral oils], B., 848.
- Walt, *A.* See Levene, *P. A.*
- Waltner, *Karl*, and Waltner, *Klara*, [physiological] action of metals. II., A., 246.
- Waltner, *Klara*. See Waltner, *Karl*.
- Walton, *A.* See Bottomley, *A. C.*, and Cocker, *W.*
- Walton, *C. H. A.* See McCullagh, *D. R.*
- Walton, *C. L.* See Staniland, *L. N.*
- Walton, *E.* See Cleme, *G. R.*
- Walton, *E. T. S.*, production of high-speed electrons by indirect means, A., 6.
- Walton, *G. W.*, photo-electric cells, (P.), B., 955.
- Walton, *J. H.*, and Kepfer, *R. J.*, phosphoric acid. II. Compound formation between orthophosphoric acid and certain organic acids, A., 537.
- Walton, *J. H.*, and Stark, *H. M.*, phosphoric acid. I. Decomposition of formic acid by means of phosphoric acid, A., 426.
- Walton, *J. H.* See also Rosenbaum, *C. K.*
- Walton, *R. P.* See Taylor, *T. C.*
- Waltzinger, *E.*, determination of sand in rice meal, B., 33.
- Wamoscher, *L.* See Stechow, *N.*
- Wancolle, *A.* See Fournau, *E.*
- Wandsworth, Wimbledon, and Epsom District Gas Co. See Croft, *C. M.*
- Wang, *C. C.*, Hawks, *J. E.*, and Kaucher, *M.*, metabolism of under-nourished children. VII., A., 1208.
- Wang, *C. C.*, and Kaucher, *M.*, metabolism of under-nourished children. VIII. Effect of high- and low-protein diets on the excretion of creatine, creatinine, and ammonia, A., 635.
- Wang, *C. C.*, Kern, *R.*, and Kaucher, *M.*, metabolism of under-nourished children. IX. Basal metabolism, caloric balance, and protein metabolism during a period of gain in weight, A., 635.
- minimum requirement of calcium and phosphorus in children, A., 1615.
- Wang, *C. C.* See also Gerstley, *J. R.*
- Wang, *L.* See Pfeiffer, *P.*
- Wanklyn, *K. P.*, manufacture of margarine, (P.), B., 675.
- Wanklyn, *K. P.*, and Stacey, *F.*, treatment of wheat germ for use as an edible food substance, (P.), B., 1045.
- Wannebo, *K. N.*, manufacture of oil gas, (P.), B., 807*.
- Wansbrough-Jones, *O. H.*, interaction of oxygen with nitrogen after collision with electrons, A., 1000.
- formation of ozone from oxygen after collision with electrons, A., 1000.
- Wanscheidt. See Vanscheidt.
- Wantz, *J. B.* See Brit. Thomson-Houston Co., Ltd., and Victor X-Ray Corp.
- Warburg, *E.* [with Rump, *W.*], photolysis of solutions of hydrogen sulphide in hexane and water, A., 305.
- photolysis of solutions of hydrogen sulphide in hexane and in water and photolysis of solutions in general, A., 17.
- Warburg, *O.*, chemical constitution of respiratory enzymes, A., 101.
- Warburg, *O.*, and Negelein, *E.*, enzyme problem and oxidation in the living organism, A., 248.
- green hæmin from blood hæmin, A., 1199.
- Warburg, *O.*, Kubowitz, *F.*, and Christian, *W.*, combustion of carbohydrate [catalysed] by methæmoglobin (mechanism of catalysis by methylene-blue), A., 1053.
- Ward, *A. F. H.*, microcalorimeter, A., 728.
- Ward, *A. M.*, bivalency of carbon. IV. Halogen displacements from *s*-tetra-bromo- and -chloro-ethane and tri-bromo- and -chloro-ethylene, A., 1400.
- Ward, *A. M.* See also Kny-Jones, *F. G.*
- Ward, *C. A.*, and Standard Oil Development Co., manufacture of paraffin, (P.), B., 1102.
- Ward, *F. A. B.*, Wynn-Williams, *C. E.*, and Cave, *H. M.*, rate of emission of α -particles from radium, A., 7.
- Ward, *F. A. B.* See also Rutherford, (*Sir*) *E.*
- Ward, *H. L.*, and Cooper, *S. S.*, system benzoic acid-*o*-phthalic acid-water, A., 1122.
- Ward, *H. L.*, and Western Electric Co., Inc., [stoving] oven, (P.), B., 572.
- Ward, *J. C.*, and Munch, *J. C.*, strychnine; sensitivity of chemical and physiological tests, A., 1456.
- Ward, *S. A.*, burners for pulverulent fuel, (P.), B., 314.
- Ward, *S. G.* See Bone, *W. A.*
- Ward, *V. J.* See Wellcome Foundation, Ltd.
- Ward, *W. H.* See Du Pont de Nemours & Co., *E. I.*
- Warden-Stevens, *F. J.*, drying, heating, or cooling [of materials], (P.), B., 40.
- Wardlaw, *L. J.* See Sims, *T. B.*
- Wardlaw, *W.*, and Webb, *H. W.*, behaviour of molybdenum pentachloride in organic solvents, A., 1389.
- Wardlaw, *W.* See also Angell, *F. G.*, Cooper, *A. J.*, and Percival, *E. G. V.*
- Ward-Watkinson, *E. J.*, X-ray apparatus [and safety devices therefor], (P.), B., 724.

- Ware, A. H., tests for aloes, B., 740.
- Ware, H. M. See Cross, R. C.
- Ware, L. A., Thomson effect in zinc crystals, A., 844.
- Warga, M. E., magnesium triplets in arc and solar spectra, A., 124.
- Waring, A. H. See Imperial Chem. Industries, Ltd.
- Waring, C. E. See Clarke, H. T., and Kodak, Ltd.
- Waring, H., and Associated Lead Manufacturers, Ltd., pulveriser, (P.), B., 41*.
- apparatus for separating and classifying suspended matter from fluids, (P.), B., 270.
- apparatus for collecting suspended dust, (P.), B., 747*.
- Wark, I. W., calibration of conductivity apparatus, A., 567.
- energy considerations in the electrodeposition of metals, B., 200.
- Warnecke, M., refrigeration by evaporation and its employment in the saltpetre industry, B., 351.
- Warner, E. C., calcium metabolism in chorea, A., 635.
- Warr, J., preventing or diminishing the formation of smoke in the burning of coal in open fire-places, (P.), B., 1011.
- Warren, A. H., experiments on the rapid cooling of low-grade masscutes, B., 30.
- Warren, B. See Johnson, Warren C.
- Warren, B. E., structure of tremolite, $\text{Ca}_2\text{Mg}_3\text{H}_2(\text{SiO}_3)_8$, A., 844.
- Warren, B. R., crystal structure and chemical composition of the monoclinic amphiboles, A., 1352.
- Warren, E. B., recovery of oily substances and purification of water containing them, (P.), B., 220.
- Warren, F. L. See Farmer, E. H.
- Warren, F. W. See Dunlop Rubber Co., Ltd.
- Warren, H. R., and Warren-Teed Seed Co., treatment of alfalfa [lucerne], clover, and other hard-shelled seeds to promote prompt germination and remove weed seeds therefrom, (P.), B., 1083.
- Warren, H. W. H. See Brit. Thomson-Houston Co., Ltd.
- Warren, L. A., and Smiles, S., *iso*- β -naphthol sulphide, A., 908.
- dehydro-2-naphtholsulphone, A., 1034.
- Warren, L. A. See also McClelland, E. W.
- Warren, L. E., assay of resin of *Podophyllum*, B., 393.
- assay of ipomoea, B., 1045.
- Warren, S. P., flotation process [for copper-zinc ores], (P.), B., 150.
- Warren Co., S. D. See Bugbird, H. C.
- Warren-Teed Seed Co., treatment of alfalfa [lucerne], clover, and other hard-shelled seeds to promote prompt germination and remove weed seeds therefrom, (P.), B., 1083*.
- Warren-Teed Seed Co. See also Kellogg, J. L., and Warren, H. R.
- Warsitz, R., industrial furnace, (P.), B., 539*.
- Wartenberg, H. von, preparation of oxygen-free nitrogen, A., 1139.
- Wartenberg, H. von [with Wollenberg, Müller, A., and Bobjak], accelerating action of stannous chloride in the silvering of glass, A., 874.
- Wartenberg, H. von, and Schütza, H., calibration of calorimeters, A., 729.
- silver voltameter, A., 731.
- Wartenberg, H. von, and Schultze, G., active hydrogen. II. Wall-catalysis, A., 302.
- Wartenberg, H. von, and Werth, H., fusion diagrams of highly refractory oxides. II., A., 847.
- Wartenweiler, F., and King, A., metallurgy of Transvaal platinum ores, B., 423.
- Wartman, P. See Smith, G. B. L.
- Warwick, B. O., and Warwick, M. (Warwick's Time Stamp Co.), combining [uncured] rubber with solid substances [e.g., bakelite], (P.), B., 1122.
- Warwick, L. E. See Crockford, H. D.
- Warwick, M. See Warwick, B. O.
- Warwick's Time Stamp Co. See Warwick, B. O.
- Washburn, E. R., existence of potassium alum in the surface layer of aqueous solutions, A., 29.
- Wasilewski, L., Kaczorowski, A., and Zabicki, S., ammonium sulphate from gypsum, B., 506.
- Wasilewski, L., and Mantel, S., application of chiolite to the electrolysis of alumina. I. The fusion diagram of the system alumina-cryolite-chiolite, A., 299.
- Wasilewski, L., and Zaleski, J. Z., rotatory furnace for extraction of aluminium salts from clay, B., 507.
- Wasitzky, A., composition of "calciamolke" (whey), B., 964.
- Wasmuht, R., behaviour of metallic oxides and silicates in chlorine, A., 439.
- Wasmuht, R., simple volumenometer, and its employment for determining the porosity and the true and apparent sp. gravities of porous masses, B., 86.
- Wasmuht, R. See also Eilender, W.
- Wasser, E. See Ehrenhaft, F.
- Wassermann, A., molecular volumes and cohesive forces of some geometrical- and position-isomeric compounds, A., 523.
- intermolecular affinity of fumaric and maleic acids and their dimethyl esters, and of *d*- and meso-tartaric acids and their methyl and ethyl esters, A., 524.
- energy content of oxidoethylenedicarboxylic acid and its ions, A., 534.
- interatomic binding forces of some isomeric carboxylic acids and their esters, A., 544.
- isothermal determination of small positive heat effects, A., 566.
- configuration of polymethylenedicarboxylic acids. IV. Ring-strain and dissociation constants of *trans*-polymethylenedicarboxylic acids. V. Dissociation constants of *cis*-polymethylenedicarboxylic acids, A., 599.
- interface potential and reactions at surfaces. I. Reduction of permanganate by charcoal, A., 1257.
- Wassermann, G., problem of the molecular or atomic solid solution of an intermetallic compound in a metal [aluminium], B., 717.
- ageing of an alloy of the constructal type, B., 717.
- Wassermann, J. See Trautwein, K.
- Wassermeyer, H., and Dutte, K., chemistry of muscular hypertrophy and atrophy. II. Contraction and tension, A., 950.
- Wassermeyer, H., and Rohrbach, A., chemistry of muscular hypertrophy and atrophy. I. Tension and relaxation of skeletal muscle, A., 950.
- Wassmuth, E. See Riesenfeld, E. H.
- Wassmuth, Ges.m.b.H., & Co., A. See Wassmuth, Kurth & Co., Akt.-Ges.
- Wassmuth, Kurth & Co., Akt.-Ges., and Wassmuth, Ges.m.b.H. & Co., A., apparatus for separating dust from flowing gases, (P.), B., 492.
- Wasson, R. B., apparatus and method for testing gases, (P.), B., 888.
- Wasteneys, H. See Borsook, H.
- Waszkowski, T. See Dziewowski, K.
- Watanabe, K., behaviour of glucose uricide in the animal body with special reference to blood-sugar, A., 369.
- vapour pressure of liquid. I. Vapour pressure, heat of vaporisation, and chemical constant of pure liquid substance, A., 1357.
- Watanabe, M., equilibrium in reduction of antimony trioxide by carbon monoxide, A., 294.
- thermodynamic data on lead sulphide and the standard potential of sulphur, A., 296.
- precipitation of metallic sulphides due to the diffusion of salt mixtures, A., 558.
- Watanabe, M. See also Ishikawa, F.
- Watanabe, S., utilisation of high-temperature coal-tar pitch. II. Preparation of active carbon from the extraction residue, B., 1098.
- Watanabe, T., mechanical dehydration of tar, B., 174.
- Watanabe, T., and Tschimoto, C., cadmium plating. I., B., 15.
- Watanabe, T. See also Katsurai, T.
- Watanabe, W. See Kôzu, S.
- Watasé, T., heat of formation of cementite, A., 862.
- Watchorn, E., absorption and excretion of calcium and phosphorus by rats receiving excessive doses of irradiated ergosterol, A., 964.
- irradiated ergosterol and calcium-free diet: effect on calcium and phosphorus metabolism, A., 1625.
- Waterhouse, D. See Prince-Smith, W.
- Waterhouse, H. See Beckinsale, S.
- Waterman, H. I., Dewald, R. H., and Tulleners, A. J., berginisation of raw rubber, B., 112.
- Waterman, H. I., and Elsbach, E. B., citronellal. III. Determination of citronellal, A., 67.
- Waterman, H. I., Perquin, J. N. J., and Westen, H. A. van, decomposition of paraffin wax on heating. II., B., 228.
- Waterman, H. I., and Priester, R., aromatic allyl and propenyl compounds, A., 209.
- aromatic allyl and propenyl compounds; geometrical isomerides of isoeugenol, A., 210.
- Waterman, H. I., Spijker, P. van't, and Westen, H. A. van, preparation of decene with a theoretical hydrogen value, A., 58.

- Waterman, H. I., Spijker, P. van't, and Westen, H. A. van, preparation of hexadecene with a theoretical hydrogen value, A., 58.
preparation of pinene with a theoretical hydrogen value, A., 92.
- Waterman, H. I., and Tulleners, A. J., formation of benzene and tar from ethylene by heating under ordinary pressure without catalysts, B., 975.
- Waterman, H. I., and Tussenbroek, M. J. van, decompositions occurring on heating oils and fatty acids with active nickel on carriers, B., 66.
decomposition of oils and fatty acids by heating with active nickel on a carrier, B., 870.
- Waterman, H. I., and Westen, H. A. van, preparation of isoprene with a theoretical hydrogen value, A., 58.
- Waterman, M. L. See Fleckenstein, G. A.
- Waterman, R. E. See Williams, R. R.
- Wates, F. S. S., [assembly of parts in Leclanché-type] electric batteries, (P.), B., 567.
- Watkins-Pitchford, H., preservation or conservation of meat, (P.), B., 165.
- Watremez, M. See Fromageot, C.
- Watson, C. B., and Carr, R. H., production of low-temperature coke, (P.), B., 311.
- Watson, C. H., and Davis & Geck, Inc., suture; [surgical thread], (P.), B., 348.
- Watson, C. W., and Texas Co., treatment of hydrocarbon oil, (P.), B., 499.
- Watson, E. C., and Akker, J. A. van den, differences in the directions of ejection of X-ray photo-electrons from various atomic levels, A., 128.
- Watson, E. M., factors which may influence the sugar content of the blood and urine, A., 1463.
- Watson, F. J. See Campbell, F. H.
- Watson, H. A., methods of assay of chloral hydrate, B., 1090.
- Watson, H. B. See Hughes, E. D.
- Watson, H. E. See Bhatt, L. A., Joglekar, R. B., Rewadikar, R. S., and Varadhan, C.
- Watson, K. M., and Kowalke, O. L., temperature changes in the formation of solutions, B., 535.
- Watson, L. K., detection of carnauba wax in beeswax, B., 917.
- Watson, M. M. See Turner, K.
- Watson, R. See Lantz, L. A.
- Watson, S. G., Henshaw, D. M., and Holmes & Co., W. C., apparatus for bringing liquids and gas or vapours and gas into intimate contact, (P.), B., 887, 888.
removal of sulphur from fuel gases, (P.), B., 893.
- Watson, W. N. See Stevens, R. H.
- Watson, W. W., and Bender, W., Zeeman effect in the red CaH bands, A., 1075.
- Watt, F. S., manufacture of cement, (P.), B., 907.
- Watt, J. M., pharmacology of xysmalobinum, A., 640.
- Watt, J. S. See Short, W. F.
- Wattenberg, H., preparation of sodium nitride and potassium nitride, A., 1137.
- Watters, A. J., and Hudson, C. S., oxidation of lactal, A., 1275.
- Watton, W. L., new type of Dewar flask for use as a calorimeter, A., 728.
- Watts, A. S., porcelain articles and their manufacture, (P.), B., 714*.
felspars and their peculiarities as ceramic solvents, B., 947.
firing of ceramic ware, (P.), B., 948.
- Watts, G. See Simon, Ltd., H.
- Watts, G. W., and Standard Oil Co., heat-exchange apparatus, (P.), B., 844.
- Watts, H. G. See Imperial Chem. Industries, Ltd.
- Watzadse, G., distribution of matter between the cell and its surroundings, A., 496.
- Wayland, E. J., and Spencer, L. J., bismutotantalite, a new mineral, from Uganda, A., 188.
- Wayne, T. B. See Varnau, B. H.
- Wazelle, H. See Benrath, A.
- Weatherill, P. F., standardisation of weights, A., 884.
- Weaver, J. B., and Gyro Process Co., treatment of hydrocarbon oils, (P.), B., 704*.
- Weaver, W. K., and Reed, C. I., inorganic constituents of the blood of normal and parathyroidectomised dogs, A., 236.
- Webb, F. A. See Webb, P. E.
- Webb, H. W., absorption of nitrous gases, B., 56.
- Webb, H. W., and Messenger, (Miss) H. A., short-duration phosphorescence in fused quartz, A., 273.
- Webb, H. W. See also Deverall, W. J., Schoeller, W. R., and Wardlaw, W.
- Webb, J. I. See Haworth, W. N.
- Webb, P. E., and Webb, F. A., manufacture of fuel mixtures, (P.), B., 806.
- Webb, R. H. See Baker Perkins, Ltd.
- Webber, C. S., Staud, C. J., and Gray, H. LeB., acetolysis of cellulose and isolation of two crystalline forms of glucose penta-acetate, A., 749.
- Weber, Al. See Wöhler, L.
- Weber, Anton, Höppner, H., jun., and Weich, H., impregnation of celluloid, (P.), B., 236.
- Weber, C. A. See Immendorff, H.
- Weber, C. J., determination of arginine, A., 755.
determination of arginine in blood, A., 1305.
- Weber, C. J. See also Major, R. H.
- Weber, F. See Grasselli Dyestuff Corp.
- Weber, G., briquetting of blast-furnace or other ferruginous dust, (P.), B., 149.
- Weber, H., laboratory labour-saving devices, A., 567.
differentiation of isomyl, isobutyl, and n-butyl alcohols, and of the lower alcohols, and of amyl and butyl acetates, by means of ammonium cobalthiocyanate, B., 232.
- Weber, Hermann, and Niemeyer, F., treatment of glycerin, (P.), B., 1132.
- Weber, H. H., Bjerrum's theory of amphoteric ions and the hydration of proteins, A., 489.
muscular contraction, A., 494.
- Weber, H. M., and Ellis-Foster Co., composition comprising resin esters, (P.), B., 1121*.
- Weber, I. E. See Laporte, Ltd., B.
- Weber, K., partition of light between two dissolved absorbents, A., 288.
division of light between two absorbing substances in the same medium, A., 1089.
- Weber, Karl. See Fink, H.
- Weber, L. J., and Lewin, G., thickness of [adsorption] layers, A., 538.
- Weber, L. J., and Traube, J., stalagmometric measurement of liquid-liquid surface tension, A., 884.
- Weber, L. J. See also Traube, J.
- Weber, S. See Keesom, W. H.
- Weber, W. C., and Dorr Co., treatment of pulp, (P.), B., 799*.
- Webster, D. M., and Porritt, B. D., causes of deterioration of ebonite when exposed to light and air, B., 293.
- Webster, D. R., variations of gastric acidity during secretion, A., 105.
- Webster, H. C., capture of electrons by α -particles, A., 1339.
- Webster, J. D. See Calico Printers' Assoc., Ltd.
- Webster, J. E., phosphorus in plants, A., 965.
- Webster, J. E., and Jansma, F., copper content of Oklahoma wheat and those of other states, A., 120.
- Webster, M. M. See Crockford, H. D.
- Webster, R. C. B. See Brit. Thomson-Houston Co., Ltd.
- Webster, T. A. See Askew, F. A., and Bourdillon, R. B.
- Wechsler, H. F. See Shemitz, R. B.
- Weck, H., Weck, T., and Van Buggenhoudt, G., photographic process printing, (P.), B., 121.
- Weck, T. See Weck, H.
- Wecke, hot fermentation of manure in practice, B., 73.
- Wecker, E., working up of crude turpentine, (P.), B., 571.
manufacture of esters of fatty acids and of mixtures containing fatty acids, (P.), B., 518, 621*.
separation of substances of dissimilar volatilities [e.g., refining fats], (P.), B., 778*.
- Weckerle, F., plastic composition and its manufacture, (P.), B., 472.
- Weckman, S. See Routala, O.
- Wedekind, E., Goost, T., and Jäckh, I., santonin. XIV. Dihydrosantonin, A., 347.
- Wedekind, E., and Schicke, W., constituents of corncockle seed. III. Githagoic acid and githagonolic acid; degradation of githagenin, A., 1324.
- Wedekind, E. See also Merck, F.
- Wedel, C. J. R. H. von, electric-discharge tubes, (P.), B., 153.
- Wedemann, W. See Zeller, H.
- Weden, H., definition and action of complex heavy metal compounds, A., 952.
- Weden, H. See also Starkenstein, E.
- Weegmann, E. See Kornfeld, G.

- Week, (Miss) M. E. See Cady, H. P.
 Weeks, E. G. See Babcock & Wilcox, Ltd., and Smythe, E. H.
 Weeks, J. R., jun. See Given, F. J.
 Weerts, J. See Sachs, G.
 Wegener, W. See Leuchs, H.
 Wegman, I., manufacture of textile fibres from peat, (P.), B., 553.
 Wegner, N. See Uddeholms Aktiebolag.
 Wehmer, C., decomposition of gluconic acid by fungi, A., 114.
 Wehr, E. R., Mahlie, C. C., and American Rolling Mill Co., metal-coating [galvanising] metal [iron or steel] sheets, (P.), B., 868.
 heat-resistant metal [galvanised iron or steel] sheet, (P.), B., 1158.
 Wehr, E. R. See also Nead, J. H.
 Wehrli, H. See Karrer, P.
 Wehrmann, defects in dry gas meters, B., 1054.
 Wehrmann, O. See Gehring, A.
 Wehrung, A., imbibition phenomena and viscose silk, B., 899.
 Weibke, F., thermal diagrams of the systems silver-strontium and silver-barium, A., 1509.
 Weich, H. See Weber, Anton.
 Weichherz, J., kinetics of the cell reaction. I, A., 168.
 properties and composition of the water-soluble fruit-tree carbolic sprays, B., 1083.
 Weichherz, J., Bodea, C., and Nord, F. F., influence of gases on lyophilic colloids. VIII. Mechanism of enzyme action, A., 1367.
 Weickert, O. See I. G. Farbenind. A.-G.
 Weickmann, A. See Reindel, F.
 Weidenfeld, L. See Feigl, F.
 Weidenhagen, R., β -glucosidase. I. Fission of amygdalin, A., 372.
 β -glucosidase. II. Hydrolysis of cellobiose, A., 301.
 specificity and mechanism of action of the sugar-splitting enzymes, A., 499.
 separation of α -glucosidase and β -*h*-fructosidase in yeast autolysates, A., 1065.
 Weidenhagen, R., and Landt, E., application of the mass action law to the enzymic decomposition of sucrose, A., 301.
 Weidenhagen, R., and Wolf, A., starch. I. Decomposition by concentrated hydrochloric acid, A., 1168.
 Weidenhagen, R. See also Tödt, F.
 Weidert, F. See Deuts. Gasglühlicht-Auer-Ges.m.b.H.
 Weidinger, A. See Fringsheim, H.
 Weidlich, R. See Sabalitschka, T.
 Weidmann, S. See Stiasny, E. G.
 Weigand, S. A. See Bolton, J. W.
 Weigert, F., photochemical analogue to the three-colour mixture rule, A., 1005.
 new group of photo-effects, A., 1259.
 Weigert, F., and Lühr, F., metallic silver in undeveloped photographic layers. I, B., 303.
 Weigert, F., and Nakashima, M., photodichroism and photoanisotropy. VI. Colour selectivity (?) of visual purple, A., 519.
 Weigert, F., and Shidei, J., colour-selectivity, a new property of the latent photographic image, A., 1005.
 photodichroism and photoanisotropy. VII. Influence of colour of exciting light on the induced dichroism, A., 1238.
 Weihe, C. See Weihe, C. R.
 Weihe, C. R., and Weihe, C., treatment of continuously-moving material, (P.), B., 353.
 Weihe, H. See Phillips, M.
 Weil, G. See Bergmann, M.
 Weil, K., change of electrical resistance of platinum on out-gassing in a high vacuum and then absorbing hydrogen, A., 1242.
 Weil, K. See also Peters, K.
 Weil, L., baking powders and "mineral raising agents," B., 391.
 Weil, R., quartz, A., 1155, 1240.
 Weil, R. See also Friedel, G.
 Weil, Rudolf, action of the thyroid hormone, A., 117.
 Weil, S., Jakobsonówna, R., and Dawidowicz, B., condensation of pyruvic acid with aromatic amines and aldehydes. III, A., 94.
 Weil, S., and Rosenblumówna, S., uranium salts, A., 627.
 Weil, S., Sliński, J., Bomberg, F., Wierzbicka, C., and Wyszogrod, Z., aryl amides, A., 1427*.
 Weil, S. See also Kahl, E.
 Weiland, H. J. See Gubelmann, I.
 Weilguny, F. G. See Fischer, Hans.
 Weill, E. See Tillmans, J.
 Weill, L. D., temperature-regulating apparatus, (P.), B., 844.
 Weimarn, N. von, colloid crystallisation states of naphthalene, A., 412.
 colloidal ice in frozen sugar solutions, A., 540.
 colloidal solutions of naphthalene, A., 691.
 colloidal synthesis of certain readily crystallisable organic compounds, A., 854.
 Weinand, K. See Gen. Aniline Works, Inc.
 Weinbaum, O., determination of the limits of solid solubility in silver-copper alloys by X-ray analysis, A., 149.
 Weinberg, K. See Krause, E.
 Weinfurter, F. See Fink, H.
 Weingand, R. See Czapek, E., and Wolf & Co., Kommandit-Ges. auf Akt.
 Weinhardt, A. See Wilke-Dorfurt, E.
 Weinkauff, O. J. See Blicke, F. F.
 Weinland, R., and Lindner, J., compounds of the trichromi-hexapropionato- (and -formiato)fluoro-complex [anions], A., 878.
 Weinschenker, P. J. See Adadurov, I. E.
 Weinstein, P., what molecular f. p. [depression] of water should be adopted as standard in determining the f. p. of milk? B., 79.
 Weinstock, M. See Hess, A. F.
 Weinziert, J. See Funk, H.
 Weir, H. M. See Chillas, R. B.
 Weis, F., physical and chemical examination of Danish heath soils, with special reference to the colloid and nitrogen contents, B., 160.
 Weisbach Komm.-Ges., C. H., calendering of textile fabrics, (P.), B., 610.
 Weisberg, S. M. See May, O. E.
 Weise, E., modern methods of tar distillation, B., 648.
 Weiser, B. See Espes, M. H.
 Weiser, H. B., physical chemistry of colour lake formation. V. Hydrous oxide-alizarin lakes, A., 28.
 adsorption and the permeability of membranes. I. Copper ferrocyanide as a semi-permeable membrane, A., 538.
 colour of arsenic trisulphide, A., 721.
 adsorption and the permeability of membranes. II. Copper ferricyanide as a semi-permeable membrane, A., 1111.
 Weiser, H. B., and Mack, G. L., formation of lyophobic organosols, A., 290.
 stability of lyophobic organosols, A., 291.
 Weiser, S., and Zaitschek, A., effect of iodine on cattle, A., 107.
 iodine metabolism of milch goats, A., 495.
 Weishan, B., production of soft iron, (P.), B., 426.
 Weiske, F. See Remy, T.
 Weiskopf, C. H. See Viets, F. H.
 Weiss, C., dependence of line absorption on brightness in the arc light, A., 654.
 Weiss, F., detection and determination of [hydr]oxymethyl-furfuraldehyde in honey and artificial honey, B., 391.
 Weiss, F. See also Griebel, C.
 Weiss, H. See Bergmann, E.
 Weiss, J., light-metal alloy, (P.), B., 379.
 Weiss, J. See also Abel, E.
 Weiss, J. J., kinetics of decomposition of hypochlorite solutions, A., 1379.
 Weiss, L. See Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler.
 Weiss, Paul, smokeless fuels, B., 353.
 Weiss, Pierre, diamagnetism of ions, A., 277, 1100.
 interpretation [energetic] of the molecular field and paramagnetism, A., 277.
 magnetism, A., 525.
 constant of molecular field; magneto-thermal equation of state, A., 987.
 Weiss, Pierre, and Forrer, R., absolute saturation of ferromagnetic substances and extrapolation formulae for the same in terms of field temperature, A., 141.
 Weiss, Pierre, Forrer, R., and Birch, F., saturation magnetisation of nickel-cobalt alloys and the atomic moments of nickel and cobalt, A., 22.
 Weiss, R. See Klein, F.
 Weiss, Robert, plant for bleaching, B., 814.

- Weissbach, K. See Braun, J. von.
- Weissbein, S., and Bäder- & Verkehrs-Akt.-Ges., manufacture of [therapeutic] durable soap creams containing highly-concentrated salt solutions, (P.), B., 394*.
- Weissberger, A., and Bach, H., reduction of benzoin with sodium amalgam and alcohol, A., 1291.
- Weissberger, A., Fasold, K., and Bach, H., reaction of magnesium phenyl bromide with hydroxylamine, A., 203.
- Weissberger, A., and Sängewald, R., electric moments of some non-rigid molecules, A., 135.
- electrical moments of the stereoisomeric stilbene dichlorides, A., 1093.
- Weissberger, A., Schwarze, W., and Mainz, H., oxidation of α -ketols with Fehling's solution, A., 1185.
- Weissberger, A., Strasser, E., Mainz, H., and Schwarze, W., auto-oxidation of α -ketols in alkaline solution, A., 475.
- Weith, A. J., Meharg, V. E., Ahlbeck, H. W., and Bakelite Corporation, manufacture of formaldehyde, (P.), B., 601.
- Weitz, E., Blasberg, K., and Wernicke, E., ammonia compounds of mercury, A., 719.
- Weitz, Fils de J., rotary concrete and similar mixing machines, (P.), B., 949.
- Weizel, W., structure of molecular states from atomic states and dissociation into these, A., 394.
- bands of lithium hydride and lithium, A., 510.
- double rotation terms from singlet Σ terms, A., 831.
- structure and spectra of the molecules of hydrogen and helium, A., 1327.
- rotation structure of light molecules, A., 1491.
- Weizel, W., and Kulp, M., band systems of alkali vapours, A., 650.
- Weizmann, M., and Malkowa, S., action of acids on β -oxido- n -propylphthalimide, A., 600.
- action of hydracids on phthalimide-epihydrin, A., 774.
- Weizmann, M., Yofe, J., and Kirzon, B., nitro-nitrogen determination by Kjeldahl's method in aromatic compounds, A., 1604.
- Welch, H. See Perkins, R. G.
- Welch, H. V., and International Precipitation Co., recovery of tin and similar functioning metals from materials containing them, (P.), B., 18.
- removal of certain constituents from metal-bearing materials, (P.), B., 18.
- Welch, J. B., progressive dry kiln and method of drying lumber, (P.), B., 908.
- Welch, K. N., reactions of malonic esters with formaldehyde. 1., A., 452.
- Welch, S. A. See Brit. Celanese, Ltd.
- Weldon, M. D. See McCool, M. M.
- Wellacott, W. L. B. See Imperial Chem. Industries, Ltd.
- Wellcome Foundation, Ltd., Smith, Sydney, and Ward, V. J., manufacture of therapeutic substances from the pituitary gland, (P.), B., 640.
- Weller, D. R., Link, L., and Standard Oil Development Co., coking of [petroleum] oils, (P.), B., 406.
- Wellisch, F. See Levy, (Mlle.) Jeanne.
- Wellman, F. E., and Kansas City Gasoline Co., stuffing-box for pressure stills, (P.), B., 492.
- Wellman, H. B., equilibrium between bivalent and quadrivalent palladium and chlorine in hydrochloric acid solutions, A., 542.
- Wellman, V. E., and Tartar, H. V., factors controlling the type of water-soap-oil emulsions, A., 413.
- Wellman Smith Owen Engineering Corporation, Ltd., and Plumley, E. W., furnaces for the heat treatment of metallic or other bodies, (P.), B., 994.
- Wellman Smith Owen Engineering Corporation, Ltd., and Soward, H. W., gas-fired furnaces, (P.), B., 885.
- Wellman Smith Owen Engineering Corporation, Ltd., and Stockdale, S., apparatus for use in discharge of coke ovens, (P.), B., 938.
- Wells, A. E., and Dalzell, R. C., gases in refined copper, B., 615.
- Wells, D. A., action of low-velocity electrons on micro-organisms, A., 253.
- Wells, E. H. See Courtaulds, Ltd.
- Wells, H. M., and Southcombe, J. E., lubricating oils, (P.), B., 134.
- Wells, J. H. See Rhodes, F. H.
- Wells, R. C., solubility of some rare-earth nitrates in ether, A., 683.
- Wells, R. C. See also Hess, F. L.
- Wells, S. D., and Paper Mill Laboratories, Inc., manufacture of pulp [boards], (P.), B., 814.
- Welsh, H. V., electrical precipitation plants, (P.), B., 869.
- Welter, A., converting liquid soap into a rapidly soluble, handy form, (P.), B., 826.
- manufacture of powdered soap, (P.), B., 1037.
- Weltha Process Corporation. See Andersen, G. F.
- Welti, H., manufacture of black or coloured upper leather, (P.), B., 252.
- Welty, G. D., and Aluminum Co. of America, [aluminium alloy] piston and its manufacture, (P.), B., 161.
- Weltzien, W., cellulose chemistry, A., 749.
- dyeing of artificial silks, B., 815.
- Wendt, B., and Agfa Ansco Corporation, desensitiser and desensitisation of light-sensitive photographic materials, (P.), B., 588*.
- Wendt, B. See also Matthies, O.
- Wendt, G. von, is vitamin-D a single substance? A., 1322.
- Wendt, G. L., Banta, C., and Standard Oil Co., manufacture of a ceresin-like wax, (P.), B., 181.
- Wendt, H., behaviour of cholesterol ester in the blood-serum in hepatic disease, A., 366.
- Weng, F. See Kliegl, A.
- Wenger, F. See Ansehütz, L.
- Wenger, P. See Duparc, L.
- Wenger, R. See Zinke, A.
- Wenk, B. See I. G. Farbenind. A.-G.
- Wenner, F., Smith, E. H., and Soule, F. M., apparatus for determining aboard ship the salinity of sea-water by the electrical conductivity method, A., 1548.
- Wennerström, K. G., melting of metal or heating molten metal in an electrical furnace, and a furnace therefor, (P.), B., 1075.
- Wenske, K., action of developers, B., 38.
- Wentz, B. See Salmang, H.
- Wentzel, G., recoil in the Compton effect with hydrogen atoms, A., 4.
- Wenzl, H. See I. G. Farbenind. A.-G.
- Wenzl, M. See Schack, A.
- Werder, F. von. See Windaus, A.
- Werder, J., detection of cider in wine by the sorbitol method, B., 78.
- Werder, J., and Zäch, C., dry, unpressed wine and natural wine, B., 926.
- Werder, J. F., and Rogers, E., system of lubrication, (P.), B., 1141.
- Werkman, C. H., determination of organic acids in mixtures. I. Determination of fatty acids in mixtures by partition between isopropyl ether and water, A., 1161.
- improved technique for the Voges-Proskauer test, A., 1479.
- Werle, E. See Kraut, H.
- Werner, D. R. E. See Odén, S. L. A.
- Werner, F., production of a cooling liquid of low f. p., (P.), B., 889*.
- Werner, F. G. See Stratmann & Werner.
- Werner, G. See Parhon, C. I.
- Werner, H., liquid sheaths and clearing, A., 541.
- Werner, H. See also Schmalfuss, H.
- Werner, J., and Schlobach Ges.m.b.H., F., producing imitations of valuable kinds of wood, tarsia work, etc., (P.), B., 61.
- Werner, M., life of filter cloths, B., 843.
- Werner, M. See also Rona, P.
- Werner, O., physical methods in chemical laboratories. XIII. Electrical moment of molecules, A., 1093.
- Werner, O. See also Habn, O.
- Werner, R., Rothmann, A., and Winthrop Chemical Co., Inc., [production of] alkaline-earth salts of arsenobenzene derivatives, (P.), B., 1169*.
- Werner, W., the mixed fertiliser "Nitrophoska," B., 1000.
- Wernert, I. J. See Raitford, L. C.
- Wernicke, E. See Weitz, E.
- Wernicke, R., and Modern, F., hydrogen microelectrode, A., 186.
- Wernicke, R. See also Modern, F.
- Wernicke & Beyer. See Schanzer, S.
- Wernimont, G. See Quinn, E. L.
- Wert, L. R. van, effect of lead on the $(\alpha + \beta)$ - β equilibrium in a 60/40 brass (Muntz metal), B., 377.
- Wertenstein, L. See Holweck, F.
- Werth, H. See Eucken, A., and Wartenberg, H. von.
- Werthan, S., Elm, A. C., and Wien, R. H., yellowing of interior gloss paints and enamels, B., 827.
- Wertheim, E., derivatives for identification of mercaptans, A., 192.

- Wertheim, E., rapid determination of sulphur in organic compounds, A., 799.
determination of sulphur in liquid organic compounds, A., 799.
o-phenetylcarbamide, A., 1574.
- Wertheimer, E., is the glycogen content of striated muscle altered in tonic contraction? A., 109.
- Wertheimer, E. See also Abderhalden, E.
- Werz, R. von. See Kahlson, G.
- Werz, W., determination of molybdenum in steels and in ferromolybdenum, B., 463.
iodometric determination of vanadium in special steels and in ferrovanadium, B., 1156.
- Wescott, E. W. See Comstock & Wescott, Inc.
- Wescott, W. B., and Rubber Latex Research Corporation, manufacture of rubber-fibre articles, (P.), B., 522.
dry moulding [of rubber articles], (P.), B., 573*.
- Wesemann, P., advantages and disadvantages of separate and joint working of the gas producers in open-hearth furnace practice, B., 193.
- Wessel, F., simultaneous determination of arsenic and copper, especially in insecticides, B., 297.
- Wessel, K., and Bosshard, A., production of lustre effect on textile fabrics [by calendering], (P.), B., 709.
- Wessel, W., effective cross-section of the free atomic nucleus, A., 1084.
- Wesselkock, H. See Schenck, R.
- Wessely, F., and Moser, G. H., synthesis and constitution of scutellarein, A., 1295.
- Wessely, F., and Sturm, K., constitution of daphnin, A., 1025.
- Wesson, L. G., relay for use in [thermo]regulating circuits, A., 883.
- West, A. P., and Taguibao, H., Philippino camphor, B., 484.
Philippine eucalyptus oil, B., 741.
- West, A. P. See also Cruz, A. O., De Santos, I., Santillan, P., and Valenzuela, A.
- West, C. See Kidd, F.
- West, E. See West, F. J.
- West, E. S., effect of a "soil mulch" on the quantity of water lost from a given soil by evaporation, B., 876.
- West, Edward S., improved laboratory condenser and its use in the construction of apparatus, A., 730.
- West, F. J., West, E., and West's Gas Improvement Co., coke extractors for vertical retorts for the carbonisation of coal and similar materials, (P.), B., 232.
vertical retorts for the carbonisation of coal, etc., (P.), B., 1054.
retorts for the generation of oil gas, (P.), B., 1139.
- West, G. H. See Pike, R. D.
- West, J. See Taylor, W. H.
- West, R., and Howe, M., crystalline derivatives of an acid present in liver, active in pernicious anæmia, A., 1309.
- West, W. A., and Menzies, A. W. C., vapour pressures of sulphur between 100° and 550° with related thermal data, A., 145.
rate of attainment of vapour-pressure equilibrium in liquids, A., 145.
- West End Chemical Co. See Hellmers, H. D.
- Westberg, S., baking a highly refractory lining in metallurgical furnaces, especially induction furnaces, crucibles, etc., (P.), B., 103.
- Westbrook, L. R., indium: recovery by electrodeposition, B., 668.
- Westen, H. A. van. See Waterman, H. I.
- Wester, P. J. See Valenzuela, A.
- Western Electric Co., Inc., production of magnetic materials [brittle magnetic alloys], (P.), B., 108.
production of carbon granules, (P.), B., 851.
- Western Electric Co., Inc. See also Bandur, A. F., Beath, C. P., Elmen, G. W., Kemp, A. R., Malm, F. S., Scott, J. W., Seeley, G. A., Snell, H. S., and Ward, H. L.
- Western States Machinery Co. See Roberts, E.
- Westfälisch-Anhaltische Sprengstoff Akt.-Ges. Chemische Fabrik, blasting cartridges, (P.), B., 265.
- Westgren, A., relation between crystal structure and atomic properties in metallic compounds of the transition elements, A., 1351.
- Westgren, A., and Phragmén, G., system chromium-carbon, A., 681.
- Westhaver, J. W., and Brewer, A. K., chemical action in the glow discharge. III. Synthesis of nitrogen dioxide, A., 553.
- Westhaver, J. W. See also Brewer, A. K.
- Westinghouse Electric & Manufacturing Co., and Brace, P. H., alloys [e.g., barium-nickel alloys for radio-valve filaments], (P.), B., 721.
- Westinghouse Electric & Manufacturing Co., and Elsey, H. McK., carbonisation of nickel and nickel alloys, (P.), B., 669.
- Westinghouse Electric & Manufacturing Co., and Ford, J. G., purification of used lubricating oils, (P.), B., 703.
- Westinghouse Electric & Manufacturing Co., and Fulton, R. R., welding flux [for iron], (P.), B., 719.
- Westinghouse Electric & Manufacturing Co., and Halliwell, G. P., thermionic cathodes, (P.), B., 1078.
- Westinghouse Electric & Manufacturing Co., and Hunt, M. H., resistor material and its manufacture, (P.), B., 1111.
- Westinghouse Electric & Manufacturing Co., and Keene, A. D., electric furnace, (P.), B., 1160.
- Westinghouse Electric & Manufacturing Co., and Kucher, A. A., working fluid for refrigeration, (P.), B., 40.
- Westinghouse Electric & Manufacturing Co., and McCulloch, Leon, insulating coating on aluminium or aluminium alloys, (P.), B., 720.
- Westinghouse Electric & Manufacturing Co., Merten, W. J., and Gayley, C. T., purifying fused salt baths, (P.), B., 142.
- Westinghouse Electric & Manufacturing Co., and Pilling, N. B., treatment of [aluminium-iron] alloys, (P.), B., 565.
- Westinghouse Electric & Manufacturing Co., and Rathbun, J. P., heat exchanger; [jet condenser], (P.), B., 2.
- Westinghouse Electric & Manufacturing Co., and Rodman, C. J., elimination of impurities in insulating oils, (P.), B., 313.
- Westinghouse Electric & Manufacturing Co., and Slepian, J., manufacture of resistor material, (P.), B., 1160.
- Westinghouse Electric & Manufacturing Co., and Styer, C. A., provision of inert atmospheres [in electrical apparatus, etc.], (P.), B., 618.
deoxidising system [for transformers], (P.), B., 723.
- Westinghouse Electric & Manufacturing Co., Upp, C. B., and Sutherland, L., manufacture of carbonised metallic wire or ribbon, (P.), B., 565.
- Westinghouse Electric & Manufacturing Co., and Tjoflat, G. B., [cooling of] induction furnace, (P.) B., 1160.
- Westinghouse Electric & Manufacturing Co., and Zworykin, V. K., light-sensitive devices; [photo-electric cells], (P.), B., 955.
- Westinghouse Lamp Co., [heater units for] thermionic cathodes of vacuum electric tube devices, (P.), B., 955.
production of carbonaceous coatings upon metallic bodies for use in electron-discharge devices, (P.), B., 1117.
- Westinghouse Lamp Co., and Freudenburgh, M. N., coated cathodes for electron-discharge devices, (P.), B., 1161.
- Westinghouse Lamp Co., and Lederer, E. A., prevention of electrical leakage [in electrical discharge devices containing an alkali metal], (P.), B., 869.
electron-discharge device and getter therefor, (P.), B., 916.
- Westinghouse Lamp Co., Marden, J. W., and Lederer, E. A., introducing highly active metals [caesium] into sealed containers [radio valves], (P.), B., 22.
- Westinghouse Lamp Co., Marden, J. W., and Rich, M. N., production of ductile chromium, (P.), B., 1115.
- Westinghouse Lamp Co., and Ramage, J. H., tungsten-tantalum alloy, (P.), B., 670.
- Westinghouse Lamp Co., and Rentschler, H. C., incandescence-cathode device [rectifier], (P.), B., 774.
manufacture of [metallic clean-up for] vacuum device, (P.), B., 996.
electron-discharge devices; electrode, (P.), B., 1161.
- Westinghouse Lamp Co., Rentschler, H. C., Marden, J. W., and Ulrey, C. T., electron-emission material, (P.), B., 1161.
- Westinghouse Lamp Co., Rentschler, H. C., and Merrymon, W. W., [gaseous-discharge current] rectifier, (P.), B., 1161.
- Westinghouse Lamp Co., and Rich, M. N., obtaining chromium [powder], (P.), B., 670.
- Westinghouse Lamp Co., and Richardson, H. K., manufacture of chromium-coated wire, (P.), B., 1034.
- Westinghouse Lamp Co., and Ulrey, C. T., manufacture of [activated] electron-emitting [cathode] devices, etc., (P.), B., 1161.
- Westinghouse Lamp Co., and Widell, E. G., coated cathodes for electron-discharge devices, (P.), B., 1161.
- Westinghouse Lamp Co. See also Marden, J. W., and Rich, M. N.
- Westling, L. L., and Hickman, M. R., gas and liquid separator, (P.), B., 126.
- Westman, A. E. R., X-ray study of firebrick, B., 145.

- Westman, A. E. R., and Hugill, H. R., the packing of particules, B., 1095.
- Weston, E. B., Clark, W. G., and Weston Paper & Manufacturing Co., manufacture of straw paper, (P.), B., 320.
- Weston Electrical Instrument Corporation, Weston standard electric cell, (P.), B., 1181.
- Weston Paper & Manufacturing Co. See Weston, E. B.
- Westphal, K. See Windaus, A.
- Westrum, L. S. van, and Bitucrete, Ltd., manufacture of bituminous concrete, (P.), B., 421*.
- West's Gas Improvement Co. See West, F. J.
- Westvaco Chlorine Products, Inc. See Low, F. S.
- Westwood, J. B. See Fletcher, L.
- Westyporoch, E. See Wohl, A.
- Wetherbee, A. U., and Gilchrist & Co., defecation of liquid, (P.), B., 3.
- Wettberg, E. F. von, and Dodge, B. F., methyl alcohol equilibrium, A., 1519.
- Wettengel, C. A. See Williams, R. J.
- Wettstein, A. See Karrer, P.
- Wetzel, E. See Kaiser, H.
- Wetzel, W., desert guano in Chile, A., 733.
- Wever, F., iron-beryllium and iron-boron alloys, and the structure of iron boride, A., 148.
- physics of the hardening of steel, B., 1031.
- Wever, F., and Kaiser-Wilhelm Institut für Eisenforschung, purification of metals, (P.), B., 290*.
- Wever, F., and Müller, Anton, binary system iron-boron, and structure of iron boride, Fe_2B_3 , A., 1372.
- structure of mixed crystals of iron with beryllium and aluminium, A., 1510.
- Wever, F., and Schmid, W. E., texture of cold-deformed metals, B., 563.
- Wewers, H., "adulterated" olive oil in sardines, B., 881.
- Weyand, C. S., and Syntron Co., system of electrical precipitation [for gases], (P.), B., 1160.
- Weyde, E., Frankenburger, W., and Zimmermann, W., measurement of weak ultra-violet intensities, A., 395.
- Weyman, J. E., burners for firing boilers, furnaces, etc., with gaseous fuel, (P.), B., 1141.
- Whalen, F. C., and Radiovisor Patent, Ltd., [radiation] pyrometer, (P.), B., 400.
- Whang, S. H. See Traube, J.
- Whatmough, W. H., and Standard Products Corp., apparatus for production of dispersions of solids in liquids, (P.), B., 972*.
- Wheale, H. See Moorwoods, Ltd.
- Wheaton, H. J. See Hilditch, T. R.
- Whedbee, E., significance of hydrogen sulphide in partly treated sewage, B., 304.
- Wheeler, A. J., combustion apparatus and method, (P.), B., 935.
- Wheeler, A. S., 4-*p*-bromophenylsemicarbazide, A., 204.
- Wheeler, F. See Hind, S. R.
- Wheeler, F. G., and Bleach Process Co., absorption method and apparatus, (P.), B., 691.
- Wheeler, R. C., and Prutzman, P. W., regeneration of alkaline purifying beds [used in treatment of petroleum vapours], (P.), B., 180.
- Wheeler, R. H., separation of salts or other solids from solutions thereof; [spray dryer], (P.), B., 306.
- Wheeler, R. V., and Wood, W. L., mechanism of thermal decomposition of normal olefines, A., 1399.
- Wheeler, R. V. See also Anglo-Persian Oil Co., Ltd., Golbert, A. L., Hague, E. N., Holroyd, R., Legg, V. H., Lloyd, F., and Maxwell, G. B.
- Wheeler, T. S. See Imperial Chem. Industries, Ltd.
- Wheelon, H., geographical factors in calcium metabolism, A., 1208.
- Wheeting, L. C., methods for determining the available potassium of soils, B., 257.
- Whelan, M., determination of nitrates and nitrites in biological fluids, A., 828.
- Whelan, M. See also Keith, N. M.
- Wherry, E. T., Ross, C. S., and Kerr, P. F., clay minerals, A., 1267.
- Whetzel, J. C. See Holden, J. H.
- Whiddington, R., moving striations in the positive column in rare gases, A., 1331.
- Whiddington, R. See also Roberts, J. E.
- Whitehart, J., apparatus for making illuminating and heating gas [from volatile liquid fuels], (P.), B., 807.
- Whincop, J. R. See Pollard, A. G.
- Whitacre, J., Willard, A., and Blunt, K., influence of fibre on nitrogen balance and on fat in human faeces, A., 948.
- Whitaker, D. See Rheocrete Pumice Stone Slab Co., Ltd.
- Whitaker, H. See Smithells, A.
- Whitaker, C. N., and Shell Oil Co., apparatus for reactivating charcoal, (P.), B., 1100.
- Whitaker, J. W., coals and their impurities, B., 540.
- Whitaker, R., and Herrington, B. L., calculation of absolute viscosity from data secured by means of the torsion viscosimeter, A., 447.
- Whitaker, W. M. See Olmsted, W. H.
- Whitby, G. S., and Greenburg, H., dialkyl sulphurdicarbothionates, A., 320.
- Whitby, G. S. See also Cambron, A., and Gallay, W.
- Whitby, L. See Vernon, W. H. J.
- Whitcomb, W. O., and Johnson, A. H., effect of severe weathering on the protein and ash contents of wheat and flour, B., 683.
- White, Abraham. See Frolich, P. K.
- White, Anne. See Goodhue, L. D.
- White, A. C. See Clark, A. J., and Stewart, C. P.
- White, A. H. See Hood, E. G.
- White, A. McL., derivation of Dühring's rule, B., 443.
- White, C. B., salvaging of storage battery plates, (P.), B., 673.
- revivification of foam solutions for fire protection with carbon dioxide, B., 797.
- White, C. B., Schaeffer, E., and Vivatex Processes, Inc., imparting bacteria- [mildew]-resistant properties to textile materials, (P.), B., 763.
- White, C. E. See Lilienfeld, S.
- White, C. M. See Sunier, A. A.
- White, E. A. See Disc Bar Mills, Ltd.
- White, E. F., treating [refining] sulphur, (P.), B., 12.
- White, G. L. See McAulay, A. L.
- White, H. A., gold metallurgy of Witwatersrand banket ores, B., 424.
- cascading v. cataracting in tube mill, B., 969.
- White, H. E., hyperfine structure in singly-ionised praseodymium, A., 265.
- interpretation of hyperfine structure in spectral terms, A., 265.
- theoretical interpretation of the hyperfine structure in singly-ionised thallium, Th II, A., 511.
- nuclear spin and hyperfine structure, A., 652.
- White, H. E., and Ritschl, R., hyperfine structure in neutral manganese, Mn I, A., 970.
- White, Harold E., refractories and refractory cements for the non-ferrous foundry, B., 613.
- White, Harold E., and Federal Phosphorus Co., elimination of silicon in ferrophosphorus, (P.), B., 720.
- White, J. H., and Bell Telephone Laboratories, Inc., production of finely-divided metallic materials, (P.), B., 288.
- White, J. R., dough composition and its manufacture, (P.), B., 36.
- White, Paul, scattering and diffraction of cathode rays, A., 655.
- White, Priscilla, and Hunt, H., blood-cholesterol in diabetic children, A., 1206.
- White, S. M., preparation of the unconjugated acids of ox-bile, A., 238.
- White, S. M. See also Karrer, P.
- White, T. A. See Benton, A. F., and Smith, H. W.
- White, V. B., glutathione in plant tissues, A., 826.
- White, W., Trimble, C. S., and Wilson, H. L., keeping quality of butter made from cream of various acidities, B., 637.
- White, W. A., furnace fronts; [burners for liquid and pulverised fuels], (P.), B., 222.
- heat-transferring devices such as air preheaters, (P.), B., 443.
- pulveriser, (P.), B., 933*.
- White, W. A., and White Patent Oil Burning Co., Ltd., furnace fronts; [burners for liquid and pulverised fuels], (P.), B., 222.
- separation of liquids of different specific gravities, (P.), B., 696*.
- White, W. B., [determination of] chlorine by the "open Carius" method, B., 1129.
- tumeric and annatto tests, B., 1130.
- White Oil Separators, Ltd. See White, W. A.
- White Patent Oil Burning Co., Ltd. See White, W. A.
- Whitehead, H., machines for washing and similarly treating fabrics with liquids, (P.), B., 764.

- Whitehead, H. R., reduction of methylene blue in milk; the influence of light, A., 947.
- Whitehead, S., dipoles in relation to the anomalous properties of dielectrics, A., 687.
- Whitehead, T. H. See Thomas, A. W.
- Whitehead, W., and Celanese Corporation of America, dyeing of organic derivatives of cellulose, (P.), B., 101*.
- Whitehead & Poole, Ltd. See Poole, J.
- Whiting, G. A., Holland, R. A., and E.M.F. Electric Co. Proprietary, Ltd., method of arc-welding, (P.), B., 723*.
- Whitlock Coil Pipe Co., heat exchanger for recovering heat from industrial waste water, (P.), B., 124.
- Whitman, V. E., neutralisation of space charge by positive ions in caesium vapour, A., 392.
- Whitman, W. G. See Stauffer, J. C.
- Whitmore, F. R. See Hopkins, H. S.
- Whitmore, F. C., and Fox, A. L., mercuration of naphthoic acids. I. α -Naphthoic acid, A., 99.
- Whitmore, F. C., and Otterbacher, T. J., [preparation of] hepta- β -ol, A., 1018.
- Whitmore, F. C., and Perkins, R. P., mercuration of hemimellitic acid, A., 99.
- Whitmore, W. F., and Lauro, M., metallic soaps—their uses, preparation, and properties, B., 724.
- Whitmore, W. F., and Schneider, Frank, effect of the presence of other elements on some microscopical tests for the metals, A., 1148.
- application of microscopical analysis to mixtures of metals and alloys, B., 616.
- Whitnah, C. H., structure of methylated sugars. I., A., 69.
- Whitnah, C. H., and Milbery, J. E., structure of methylated sugars. II., A., 748.
- Whitney, W. R. See Brit. Thomson-Houston Co., Ltd.
- Whitney, W. T. See Memminger, C. G.
- Whittaker, C. W., Lundstrom, F. O., and Merz, A. R., rapid determination of nitrogen peroxide in nitrogen peroxide-air mixtures, B., 372.
- Whitlsey, T., mulches or coverings for cultivated land, (P.), B., 1125.
- Whittemore, O. J., absorption [in bricks] in relation to durability, B., 240.
- Whittier, E. O., and Gould, S. P., vapour pressures of saturated equilibrated solutions of lactose, sucrose, dextrose, and galactose, B., 260.
- Wlancko, A. T., Walker, G. P., and Conner, S. D., comparison of soil-liming materials, B., 783.
- Wiarda & Co., J. C. See Laury, N. A.
- Wibaut, J. P., and Kam, E. J. van der, behaviour of amorphous carbon and sulphur compared with that of diamond and of graphite; Ciusa's carbon sulphide, A., 308*.
- Wibaut, J. P. See also De Jong, M.
- Wibaut, (Mme.) N. L., protozoological examination of water, B., 1094.
- Wiberg, E., structural principles of compounds of boron and hydrogen, A., 524.
- constitution of the polyborates, A., 1096.
- borohydrates and boron suboxides, A., 1096.
- Wiberg, E. See also Ramser, H., and Stock, A.
- Wick, F. G. See Nichols, E. L.
- Wickel, F. C. See Realisation des Brevets Franc. Amoureux & Co.
- Wickes, J. W., apparatus for separation of finely-divided solids from liquids, (P.), B., 539*.
- Wicking'sche Portland Cement- & Wasserkalkwerke, intimate admixture of materials [e.g., the constituents of Portland cement], (P.), B., 285.
- Wicks, Z. W., gas purifier, (P.), B., 1139.
- Widawski, E., and Sauerwald, F. [with Eisenreich], density measurements at high temperatures. X. Direct hydrometric method, and the density of molten metals, especially iron alloys, at temperatures up to 1600°, A., 1395.
- Widder, W., simple apparatus for demonstration of Gay-Lussac's law and determination of the coefficient of expansion of air, A., 730.
- Widdows, S. T., Lowenfeld, M. F., Bond, M., and Taylor, E. I., composition of human milk in the later periods of lactation and a comparison with that of early milk, A., 805.
- Widell, E. G. See Westinghouse Lamp Co.
- Widmann, E., methylglyoxal as the product of glycolysis by blood-corpuscles, A., 360.
- Widmann, E., quantitative conversion of methylglyoxal into pure $d(-)$ -lactic acid by *B. fluorescens*, A., 376.
- Widmann, E., and Schneider, E., methylglyoxal as an intermediate product of carbohydrate degradation, A., 1312.
- Widmark, E. M. P., determination of ether-soluble acids of urine by the rocking extraction method, A., 240.
- blood samples for determination of alcohol content, A., 631.
- passage of alcohol into the urine by diffusion, A., 633.
- Widmark, E. M. P., and Ljungberg, E., source of error in the determination of the organic acids of urine by the method of Van Slyke and Palmer, A., 239.
- Widmer, E., refractivity of anhydrous alkali hydrogen phthalates, A., 1348.
- Widmer, G. See Staudinger, H.
- Wiede, A. H., manganese content of the Mississippi river water at Fairport, Iowa, A., 731.
- Wiede, R., and Brevoort, M. J., heat capacity of saturated liquid nitrogen and methane from the b. p. to the critical temperature, A., 532.
- Wiede, R., Hubbard, K. H., and Brevoort, M. J., heat capacity of saturated liquid ethane from the b. p. to the critical temperature, and heat of fusion of the solid, A., 532.
- Wiechmann, E., appearance of sugar in urine after injection of insulin, A., 379.
- Wiechmann, E., and Elzas, J., excretion of copper oxide-reducing substances in the urine of hypertonics and normal individuals, A., 241.
- Wiedeman, G. M. See Ritter, J. J.
- Wiedersheim, V. See Wieland, H.
- Wiegand, C., effect on the fluorescence of solutions of amino-acids of their photo-oxidation products, A., 1092.
- Wiegand, K. See Patent-Treuhand Ges. f. elektr. Glühlampen m.b.H.
- Wiegand, W. B., and Boggs, C. R., carbon black in rubber insulating compounds, B., 958.
- Wiegand, W. B., and Venuto, L. J., treatment of carbon black and other fine powdery materials, (P.), B., 700.
- Wiegel, E., formation and particle structure of multicoloured silver sols. II., A., 690.
- colour and particle size of colloidal silver, especially hydrogen peroxide silver sols, A., 1517.
- Wieger, B., modern pulp-sizing problems, B., 608.
- sizing of paper and compositions therefor, (P.), B., 1106.
- Wiegmann, H., recovery of phenol from coke-oven gas liquor in relation to the best known processes of by-product recovery, B., 934.
- Wiegner, G., hydrogen and hydroxyl ions in the ion-swarms surrounding suspended particles and dispersed ultramicros, A., 696.
- Wiegner, G., and Pallmann, H., hydrogen and hydroxyl ions in the ionic layer of suspended particles and dispersed ultramicros, B., 252, 342*.
- Wiegner, G., and Russell, E. W., determination of number of particles in sols by counting in the ultramicroscope, A., 1115.
- Wiegnebe, L. See Lindemann, H.
- Wieland, H., and Boehringer Sohn Chemische Fabrik, C. H., production of antiseptic agents, (P.), B., 968*.
- Wieland, H., and Chrometzka, F., mechanism of oxidative processes. XXIV. Catalytic decomposition of ethyl peroxide by iron, A., 890.
- Wieland, H., and Dorrer, E., action of hydrocyanic acid, hydrogen chloride, and aluminium chloride on unsaturated hydrocarbons, A., 464.
- Wieland, H., and Frage, K., mechanism of oxidative processes. XX. Succinic acid-dehydrogenase, A., 168.
- liver dehydrogenase. XXII. Mechanism of oxidative processes, A., 498.
- Wieland, H., and Gough, G. A. C., sterols from yeast. II., A., 1431.
- Wieland, H., and Gumlich, W., degradation experiments on dihydrobrucine, A., 1455.
- Wieland, H., and Hoshino, T., quinovic acid. II., A., 600.
- Wieland, H., and Kerr, F. N., behaviour of alkoxide solutions towards nitric oxide. II., A., 573.
- Wieland, H., Kitasato, Z., and Utzino, S., [fulminic acids]. X. Constitution of polymerised fulminic acids, A., 482.
- Wieland, H., and Münster, W., strychnine alkaloids. IV. The degradation acids $C_{17}H_{21}O_5N_2$ and $C_{16}H_{19}O_4N_2$ from strychnine, A., 936.

- Wieland, H., and Razubaiev, G., occurrence of free radicals in chemical reactions. VI. Thermal fission of acyl peroxides, A., 911.
- Wieland, H., and Rosenfeld, B., mechanism of oxidative processes. XXI. Dehydrogenating enzymes of milk, A., 248.
- Wieland, H., Straub, W., and Dorfmueller, T., female sexual hormone, A., 255.
- Wieland, H., and Sutter, H., mechanism of oxidative processes. XXII. Mode of action of oxidases and peroxidases, A., 372.
- Wieland, H., and Vocke, F., bile acids. XXX. Constitution of the tetracarboxylic acid, $C_{16}H_{24}O_8$, A., 1435.
- poisons of the Japanese toad. IV., A., 1466.
- Wieland, H., and Wiedersheim, V., bile acids. XXIX. Thermal decomposition of the simple bile acids, A., 473.
- Wieland, H. See also Franceschetti, A.
- Wieland, J. See Terres, E.
- Wieland, K., band spectra of mercury, cadmium, and zinc halides, A., 652.
- Wieland, W. See Treadwell, W. D.
- Wien, K., separation of spark and arc lines of oxygen and nitrogen in the far ultra-violet, A., 1074.
- Wien, R. H. See Werthan, S.
- Wiener, A. See Fringsheim, H.
- Wiener, H. J., and Wiener, R. E., plasma-proteins [in disease], A., 1309.
- Wiener, R. E. See Wiener, H. J.
- Wierl, R., Stark effect and polarisation, A., 266.
- application of electron scattering to the problem of free rotation, A., 652.
- Wierl, R. See also Mark, H.
- Wiersma, E. C., and Woltjer, H. R., methods and apparatus used in the cryogenic laboratory. XXIII. Horizontal cryostat for the measurement of magnetic susceptibilities at low temperatures, A., 314.
- Wiersma, E. C. See also Woltjer, H. R.
- Wierzbiecka, C. See Weil, S.
- Wiesemann, C. See Heiduschka, A.
- Wiesener, H., sands of the Lower Austrian Marchfeld, A., 1267.
- Wiesler, B., sedimentation of causticiser sludge [in alkali recovery] in the sulphate-cellulose process, B., 984.
- determination of dry weight of wood pulp, B., 1061.
- Wiessmann, H., and Naumann, K., nature of the yield curve [of plants] with increasing applications of potash, B., 961.
- Wiessmann, H., and Schramm, E., relationship between the nutrient content and reaction of soil, B., 630.
- Wiessmann, H. See also Honcamp, F.
- Wiest, G. See Kliegl, A.
- Wietzel, G. See I. G. Farbenind. A.-G.
- Wietzel, R. See I. G. Farbenind. A.-G.
- Wiezevich, P. J. See Cooper, C. M.
- Wigand, A., and Frankenberger, E., stability and coagulation of mists and clouds, A., 540.
- Wiggam, D. R., flow relationships in nitrocellulose dispersions, B., 623.
- Wiggin, J. D., Remmes, M. M., and Wiggins' Sons Co., H. B., plaster and process of controlling the setting and expansion of setting, an accelerator and expansion controller therefor, and their manufacture, (P.), B., 192.
- Wiggins' Sons Co., H. B. See Wiggin, J. D.
- Wigglesworth, H., Orlandi, U., and Levi, G., manufacture of manures [phosphatic fertilisers], (P.), B., 475.
- Wigley, C. G., and Potts, C., disposal of sewage and other waste organic matter, (P.), B., 1132^{*}.
- Wignall, H. See Saunders, K. H.
- Wigren, N., *as*-dialkylarsine derivatives, A., 899.
- methylethyloxarsylacetic acid, A., 1027.
- Wiig, E. O., temperature coefficients of the decomposition of acetonedicarboxylic acid in water, A., 426.
- acetonedicarboxylic acid as a leavening agent, B., 33.
- leavening of foodstuffs, india-rubber, etc., (P.), B., 965.
- Wijk, A. von. See Reerink, E. H.
- Wijk, D. J. R. van, acid to sugar ratio in oranges, B., 1003.
- Wijk, W. R. van, intensity measurements in the band spectrum of nitrogen, A., 387.
- Wijk, W. R. van. See also Ornstein, L. S.
- Wilberg, L., behaviour of the nuclear oscillation bands of the ammonium radical in the transition region, A., 1343.
- Wilborn, F., abnormal rusting, B., 286.
- Wilborn, F., and Löwa, A., oilseeds oil, B., 25.
- Wilcox, L. V., determination of boron in natural waters and plant materials; modification of the Chapin method, A., 1543.
- Wilcox, L. V. See also Scofield, C. S.
- Wilcoxon, F., and McCallan, S. E. A., fungicidal action of sulphur. I. Alleged rôle of pentathionic acid, A., 1068.
- Wilcoxon, F. See also Hartzell, A.
- Wilczewski, F. See Meyer, D.
- Wild, L. W., and Wild-Barfield Electric Furnaces, Ltd., [thermal fuse for] electric furnaces, (P.), B., 152.
- [fan for] electric ovens, (P.), B., 1160.
- Wild, L. W. See also Wild-Barfield Electric Furnaces, Ltd.
- Wild, R. W. See Stone & Co., Ltd., J.
- Wild-Barfield Electric Furnaces, Ltd., and Wild, L. W., [method of supporting bricks of] electric furnaces, (P.), B., 429.
- Wild-Barfield Electric Furnaces, Ltd. See also Wild, L. W.
- Wilde, W. See Riley & Sons, Ltd., J.
- Wilde, W. D. See Oldham & Son, Ltd.
- Wilder, F. L., Morris, E., Schiff, E., King, E. S., and Electro Metallurgical Ore Reduction, Ltd., roasting of [tin] ores, etc., (P.), B., 823^{*}.
- Wilder, H. K., and Kellogg Co., continuous mixing machine, (P.), B., 353.
- Wilder, L. R., [cooling and insulating medium for] electrical apparatus, (P.), B., 672.
- Wilderma, M., electric batteries, (P.), B., 202.
- porous substances used as battery separators, diaphragms, etc., (P.), B., 516.
- manufacture of porous bodies, filters, diaphragms, etc., consisting of porous or porous and non-porous parts made of soft to hard rubber, etc., (P.), B., 678.
- Wildi, W. See Bosshard, E.
- Wildish, H. W., separator of liquids and gases, intended particularly for use in gas-compressing plants, (P.), B., 888.
- Wildish, J. E., origin [and extraction] of protoactinium, A., 308.
- Wildman, J. D. See Keenan, G. L.
- Wildner, H. See Fink, H.
- Wildt, R., energy of polymerisation of water, A., 544.
- Wildt, R. See also Mecke, R.
- Wile, U. J. See Eckstein, H. C.
- Wilensky, B. See Bach, A.
- Wiley, F. H., and Lewis, H. B., action of nitrous acid on cascino-gen, A., 798.
- Wiley, R. C., rapid volumetric method for determination of lead, B., 425.
- determination of calcium in the presence of iron and aluminium, A., 881.
- Wiley, R. C., Ambrose, P. M., and Bowers, A. D., titration of lead salts, A., 1545.
- Wiley, W. J., dissociation of calcium citrate, A., 1371.
- Wilhelm, C., replacement of the sodium flame for polarimeter illumination by electric light, using a filter, A., 466.
- Wilhelm, J. O. See McLennan, J. C.
- Wilhelm, K. F., obtaining oils and fats of pale colour and of low acid content from fish, flesh, or offal, and producing light-coloured fish, flesh, or offal meals, (P.), B., 1119.
- Wilhelmj, C. M., and Mann, F. C., influence of nutrition on response to amino-acids. II. Effect of fasting followed by diets high in carbohydrates, A., 951.
- Wilke, G. See Binz, A.
- Wilke, K. See Gen. Aniline Works, Inc.
- Wilke-Dörfurt, E., Balz, G., and Weinhardt, A., fluosulphonic acid, A., 308.
- Wilke-Dörfurt, E., and Mureck, H. G., complex antipyrine metal salts, A., 49.
- Wilke-Dörfurt, E., and Niederer, K., salts of the complex hexa-carbamidochromic cation, A., 179.
- Wilke-Dörfurt, E., and Pfau, R., isomorphism between hexa-carbamidochromic permanganate, perchlorate, fluoborate, fluorosulphonate, and iodide, A., 722.
- Wilke-Dörfurt, E., and Römersperger, H., iodine content of coal, A., 449.
- Wilke-Dörfurt, E., and Wolff, E. A., iodine trichloride as a reagent for sulphide minerals, especially pyrites, A., 311.
- Wilkins, F. J., rate of vaporisation and vapour pressure: method of measuring the specific area of a surface, A., 403.
- validity of the interference method for the measurement of the specific area of a copper surface, A., 1111.
- kinetics of the oxidation of copper. II. Limiting pressure; evidence for the lateral diffusion of adsorbed gas, A., 1129.

- Wilkins, F. J., and Rideal, E. K., kinetics of the oxidation of copper. I. Initial oxidation of copper at low temperatures, A., 1129.
- Wilkins, H. L., sundry means of hastening the determination of protein in wheat, B., 683.
- Wilkinson, A. D., and Cananea Consolidated Co., S. A., smelting of copper, (P.), B., 1076.
- Wilkinson, B. See Rowlands, M. J.
- Wilkinson, D. G. See Harvey, J.
- Wilkinson, E. J., Scott, H. M., and Henshilwood, A. B., treatment [filling] of woven and similar fabrics, (P.), B., 186.
- Wilkinson, G. H., blotting paper [having one face polished], (P.), B., 761.
- Wilkinson, G. H. See also Muir, J.
- Wilkinson, J. A. See Hoff, W. L., and Satwalekar, S. D.
- Will, G. See Jendrassik, L.
- Willaman, J. J., malt pectinase, A., 372.
- Willaman, J. J., and Easter, S. S., factors affecting colour in sorghum syrup, B., 29.
- Willaman, J. J. See also Traub, H. P.
- Willard, A. See Whitacre, J.
- Willard, H. H., modern trends in analytical chemistry, A., 1142.
- Willard, H. H., and Boldyreff, A. W., determination of mercury as metal by reduction with hydrazine or stannous chloride, A., 444.
- determination of calcium by ignition of calcium oxalate to carbonate in air, A., 881.
- Willard, H. H., and Kassner, J. L., solubility of lead sulphate, chromate, and molybdate in nitric acid and in perchloric acid, A., 989.
- preparation and properties of lead perchlorate, A., 1007.
- Willard, H. H., and Thompson, J. J., micro-determination of halogens and metals in organic compounds, A., 940.
- determination of perchlorate, A., 1143.
- Willard, H. H., and Young, (Miss) P., ceric sulphate as a volumetric oxidising agent. X. Determination of thallium. XI. Oxidation of organic acids, A., 312.
- ceric sulphate as a volumetric oxidising agent. XII. Determination of tellurous acid. XIII. Determination of mercurous mercury, A., 442.
- Willard Storage Battery Co. See Lundeen, E. F.
- Wille, H. See Vorländer, D.
- Willeke, H. See Schenck, R.
- Willemart, A., rubrenes, A., 334.
- Willett, P. G. See Hartford-Empire Co.
- Willey, E. J. B., active nitrogen. VII. Decay of the nitrogen afterglow, A., 524.
- active nitrogen. VIII. (I) Influence of photogens and of surfaces on glow phenomena in nitrogen. (II) Effects of addition of other gases to luminous nitrogen, A., 838.
- Willey, E. J. B., and Stringfellow, W. A., electrical properties of active nitrogen, A., 1340.
- Willheim, R., and Stern, K., chemical measurement of carcinolysis, A., 1611.
- Williams, A. E., manufacture of rice starch, B., 1085.
- Williams, A. F. See Bradfield, A. E.
- Williams, A. T., behaviour of the mercury line 1849.57 ($1^1S_0 - 2^1P_1$), A., 125.
- spectral terms and chemical valency, A., 127.
- wave mechanics and homo- and hetero-polar compounds, A., 660.
- Williams, C. O., South African tanning materials. II. Trees and plants other than the black wattle, B., 730.
- Williams, D. See Grossmann, M. A.
- Williams, D. M. See Hanson, N. W.
- Williams, E. J., passage of slow β -particles through matter; production of branches, A., 1085.
- Williams, E. J., and Terroux, F. R., passage of "fast" β -particles through gases, A., 270.
- Williams, (Sir) E. O., instruments for testing or comparing the physical properties [penetrability] of soil, B., 475.
- Williams, E. T., construction [from lead or lead alloy] of grids, plates, frames, etc., for electric accumulators, (P.), B., 247.
- Williams, F. A. See Ross, E. G.
- Williams, F. E. See Kellaway, C. H.
- Williams, G., chlorination of anilides. VI. Rates of *N*-chlorination of acetanilides and acetobenzylamides and effects of substituents on side-chain reactivity, A., 335.
- Williams, H. M., and General Motors Research Corporation, bearing [copper-tin-lead] alloy, (P.), B., 239.
- Williams, I., and Neal, A. M., solubility of oxygen in rubber and its effect of rate of oxidation, B., 958.
- Williams, J., and Corran, J. W., preservation of the antiscorbutic vitamin in lemon juice, A., 381.
- Williams, J. H. See Allison, S. K.
- Williams, J. L., increase in blood-uric acid in patients with cardiac decompensation, A., 1469.
- Williams, J. W., dielectric constants of binary mixtures. X. Electric moments of simple derivatives of cyclohexane and of dioxan. XI. Dioxan as a solvent for electric moment studies, A., 849.
- Williams, J. W., and Fogelberg, J. M., electric moments of aromatic diamines, A., 667.
- dielectric constants of binary mixtures. IX. Electric moments of substituted phenols and their relation to the stereochemistry of the oxygen atom, A., 667.
- Williams, J. W., and Drissen, E. M., oxidation-reduction potentials of sulphhydryl compounds, A., 1026.
- Williams, J. W. See also Hansen, L. A., Johnstone, J. H. L., Reynolds, N. B., and Schwingel, C. H.
- Williams, K. A. See Bolton, E. R.
- Williams, L. O., red-water trouble and the remedy at West Palm Beach, B., 742.
- Williams, O. E. See Leighton, A.
- Williams, P. T., and Minerals Separation, Ltd., froth flotation concentration of ores, etc., (P.), B., 63.
- Williams, Rice, determination of exchangeable bases in soils: magnesium, potassium, and total bases, B., 28.
- determination of exchangeable sodium in soils, B., 876.
- Williams, Roger, and Du Pont Ammonia Corporation, production of hydrogen, (P.), B., 143.
- preparation of phosgene [carbonyl chloride], (P.), B., 1066.
- Williams, R. C. See McBain, J. W.
- Williams, R. E. See Kramer, M. M.
- Williams, R. J., Wettengel, C. A., and Southern Manganese Steel Co., shear surface ring [hammer] for pulverising machines, (P.), B., 86.
- Williams, Roger J., and Roehm, R. R., effect of antineuritic vitamin preparations on growth of yeasts, A., 1222.
- Williams, R. R., chemistry in the telephone industry, B., 515.
- Williams, R. R., Waterman, R. E., and Gurin, S., procedure of Jansen and Donath for isolation of vitamin-B₁, A., 1222.
- Williams, S. V. See Gen. Electric Co.
- Williams, W. A., electrodeposition of rubber, (P.), B., 830*, 1122*.
- Williams, W. W., dihydroperillamino and its reaction with nitrous acid, A., 610.
- Williams Oil-O-Matic Heating Corporation, manufacture of gas of the nature of producer gas from liquid fuel, (P.), B., 178.
- Williamson, B. F., and Beisler, W. H., manufacture of ester gum, (P.), B., 69.
- Williamson, F. O., ball mill, (P.), B., 537.
- Williamson, R. V., flow of pseudoplastic materials, B., 39.
- relation of oil absorption to consistency of pigment-oil pastes, B., 336.
- slippage correction in the equation of plastic flow, B., 676.
- Williamson, R. V., Patterson, G. D., and Hunt, J. K., estimation of brushing and flowing properties of paints from plasticity data, B., 67.
- Williamson, R. V. See also Kraemer, E. O.
- Willig, E. See Brass, K.
- Willigen, P. C. van der, production of emulsions of oxidised drying oils, or varnishes or lacquers containing such oils, (P.), B., 997.
- Willigen, P. C. van der, and Naaml. Vennoots. Nederlandsche Linoleumfabriek, manufacture of flexible floor, wall, and similar coverings, (P.), B., 420.
- Willmott, S. G. See Smith, William.
- Willingshofer, K. See Heller, K.
- Willis, G. H. See Bennett, G. M.
- Willis, N. E., washing of wool and other textile materials and compositions for use therefor, (P.), B., 98.
- Willrath, H. H., stability of hydrogen peroxide solutions, B., 238.
- Willshaw, H. See McKay, R. F.
- Willson, F. E., assay of pancreatin, B., 439.
- critical remarks on the U.S.P. pancreatin assay, B., 439.
- Willson, F. G. See Jones, W. W.
- Willstaedt, H. See Euler, H. von.
- Willstätter, R., blue colour of sea-water, A., 1551.

- Willstätter, R., Bamann, E., and Rohdewald, M., enzymes of leucocytes. II. Proteolytic activity. III. Enzymes of the salivary glands, A., 234.
enzymes of leucocytes. V. Trypsin, A., 942.
- Willstätter, R., Ulbrich, E., Pogány, L., and Maimeri, C., rearrangement of naphthaquinonephenylhydrazones, A., 214.
- Wilner, T., and Borelius, G., heat conductivity of atmospheric nitrogen up to 500°, A., 535.
- Wilser, B. See Petracek, W.
- Wilson, A. L., triethanolamine [tri- β -hydroxyethylamine] emulsions, B., 547.
- Wilson, A. N., the X-ray stereoscopic examination of coal, B., 540, 646, 1137.
- Wilson, B. D., extraction of adsorbed cations from soil by electro-dialysis, B., 162.
exchangeable calcium and potassium in soils as affected by cropping and fertilisation, B., 474.
translocation of calcium in soils as measured by electrodialysis and plant growth, B., 629.
- Wilson, D. W. See Johnston, C. G.
- Wilson, E. O., and Kuan, R. C., hydrolysis of aluminium salts, A., 293.
- Wilson, H. F. See Smith, W. S.
- Wilson, H. L. See White, W.
- Wilson, H. R., flotation process [for oxidised lead-silver ore], (P.), B., 19.
- Wilson, J. See Triplex Safety Glass Co., Ltd.
- Wilson, J. B., and Keenan, G. L., identification of flavouring constituents of commercial flavours. I. Optical properties of the semicarbazones of certain aldehydes and ketones, B., 1003.
- Wilson, J. E., McConnell, S., and Brown, C., [apparatus for] making bread, (P.), B., 439.
- Wilson, J. F. See Munro, Ltd., R. W.
- Wilson, J. P., and Wilson-Otwell & Cone, Inc., drying of lumber, (P.), B., 1031.
- Wilson, J. R., Levine, S. Z., and Kelly, M., respiratory metabolism in infancy and childhood. XI. Respiratory exchange in marasmus; effect of muscular activity, A., 1611.
- Wilson, J. S., Beckett, E. G., Thomas, J., and Scottish Dyes, Ltd., production of dry powders of anthraquinone acetate silk dyes, (P.), B., 1018.
- Wilson, J. S., Hooley, L. J., Thomas, J., and Scottish Dyes, Ltd., preparation of [vat] dye derivatives, (P.), B., 896.
colouring of wool and other animal fibres [with vat dye sulphonic acids], (P.), B., 901.
- Wilson, J. S., Thomas, J., and Scottish Dyes, Ltd., dyeing of cellulose acetate, (P.), B., 859.
- Wilson, J. S. See also Tonkin, R.
- Wilson, L. M., management of gas producers, B., 541.
- Wilson, P. W., Peterson, W. H., and Fred, E. B., relationship between the nitrogen and carbon metabolism of *Clostridium acetobutylicum*, B., 680.
- Wilson, R. E., corrosion of underground steel structures and its prevention, B., 329.
- Wilson, R. E., and Dearborn, R. J., cracking of oils, (P.), B., 978.
- Wilson, R. E., and Standard Oil Co., heat exchanger, (P.), B., 222.
distillation of hydrocarbon oils, (P.), B., 1055.
- Wilson, R. H., rate of absorption of cystine from the gastrointestinal tract of the white rat, A., 952.
- Wilson, R. H., and Lewis, H. B., metabolism of amino-acids. II. Rate of absorption of amino-acids from gastro-intestinal tract of white rats, A., 109.
metabolism of amino-acids. III. Glycogen formation after oral administration of amino-acids to white rats, A., 367.
- Wilson, S. D. See Feng, C. T.
- Wilson, S. H. J., calorific value of coconut husks, B., 890.
- Wilson, W., apparatus for the purification of gas, (P.), B., 92.
instrument for indicating or recording sp. gr. of gases, (P.), B., 845.
- Wilson, W. C., and Cutler-Hammer, Inc., nitrobenzene-sulphur resin, (P.), B., 111.
- Wilson, W. K., composition of some rabbit carcasses, B., 1167.
- Wilson-Otwell & Cone, Inc. See Wilson, J. P.
- Wiltshire, J. L. See Barnett, E. de B.
- Wiltshire, M. O. P., rate of oxidation of adrenaline, A., 1220.
effect of amino-acids on the rate of oxidation of adrenaline, A., 1220.
- Wimmer, H., laboratory muffle furnaces, A., 446.
- Winans, J. G., extinction of sodium fluorescence by means of foreign gas, A., 520.
- Winchester, G., and Reber, R. K., variation of surface tensions of lubricating oils with temperature, B., 46.
- Winchester Repeating Arms Co. See McNutt, J. D.
- Winckler, W. T., and Winkler Chemical Co., manufacture of fire-resisting material, (P.), B., 510.
- Winckler, W. T., and Winkler Laboratories, Inc., manufacture of pharmaceutical compounds, (P.), B., 1091.
- Windaus, A., positions of the double linkings in ergosterol and its transformation products, A., 1578.
- Windaus, A., Bergmann, W., and Butte, H., dehydroergosterol and ergosterol, A., 338.
- Windaus, A., Bergmann, W., and König, G., scymnol, A., 1039.
- Windaus, A., Gaede, J., Köser, J., and Stein, G., crystalline irradiation products of ergosterol and dehydroergosterol, A., 1577.
- Windaus, A., and Haack, E., uzarin, A., 1024.
- Windaus, A., and Rygh, O., ergosteryl esters and their behaviour on ultra-violet irradiation, A., 119.
- Windaus, A., and Tschesche, R., so-called "ischolesterol" of wool fat, A., 1179.
- Windaus, A., Westphal, K., Werder, F. von, and Rygh, O., ultra-violet irradiation of ergosterol, A., 1005.
- Windaus, S., and Luttringhaus, A., action of perbenzoic acid on ergosterol and its derivatives, A., 1178.
- Winder, F. J., and Allegheny Steel Co., continuous-heat annealing furnace, (P.), B., 244.
- Windheuser, C. See Brigl, P.
- Windisch, F., influence of aeration during fermentation on yeast condition and beer quality, B., 299.
action of high pressure of carbon dioxide on yeast fermentation, B., 479.
separation of the agitation effect in beer fermentation into aeration and effective yeast-surface factors ("spänende Wirkung"), B., 526.
- Windisch, W., and Kolbach, P. [with Hanke, H.], distribution of the total, soluble, and coagulable nitrogen between the distal and proximal ends of barley and malt grains, B., 77.
- Windisch, W., Kolbach, P., and Borges, E., electrodialysis of wort and beer, B., 479.
- Windisch, W., Kolbach, P., and Illies, R., acid formation during the fermentation of beer wort, B., 1087.
- Windisch, W., Kolbach, P., and Schild, E., influence of shaking and temperature on acid production and nitrogen assimilation during fermentation, B., 879.
- Windus, W., and Marvel, C. S., synthesis of methionine, A., 1026.
reduction of nicotine and derivatives of hexa- and octa-hydro-nicotines, A., 1049.
- Winegarden, H. M. See Borsook, H.
- Winfield, F. T. See Prideaux, E. B. R.
- Winfield, J. See Haddon, Waller.
- Winfield, M. See Tilt, J.
- Wing, H. J., thermoregulators, A., 729.
- Wingfield, B. See Kirschman, H. D., and Schreiber, W. T.
- Wingler, A. See Schulemann, W.
- Winkel, A. See Jahr, K. F., and Jander, G.
- Winkelmann, H., method of measuring granular material by volume, B., 843.
- Winkelmann, H., and American Bemberg Corporation, production of artificial threads by the cuprammonium stretch-spinning process, (P.), B., 761*.
- Winkelmann, H. A., and Croakman, E. G., behaviour of various clays with crude and reclaimed rubber, B., 959.
- Winkelmann, W. See Schmid, A.
- Winkle, R. van, and Christiansen, W. G., quantitative analytical methods for the study of peroxide formation in ether, B., 216.
- Winkler, A. J., effect of dormant pruning on the carbohydrate metabolism of *Vitis vinifera*, A., 965.
- Winkler, F. See I. G. Farbenind. A.-G.
- Winkler, J., analysis of the benzene fractions of Polish petroleum, and its chemical composition, B., 272.
- Winkler, J. See also Piotrowski, W. J.
- Winkler, K., improvement of asphalt and bituminous masses, (P.), B., 559, 598.
- Winkler, K. See also I. G. Farbenind. A.-G.
- Winkler, K. C. See Kruyt, H. R.
- Winkler, M., effect of an electric field on resonance radiation, A., 1490.
- Winkler, S. See Helferich, B.
- Winkler, W. See Spengler, O.
- Winkler Chemical Co. See Winckler, W. T.

- Winkler Laboratories, Inc. See Winckler, W. T.
Winks, F. See Dimpleby, V., and Turner, W. E. S.
Winnacker, K. See Berl, E.
Winning, C., accessories for use with the Saybolt universal viscometer, A., 1550.
Winokuti, K. See Nishizawa, K.
Winship, E., ink [for intaglio printing], (P.), B., 1120.
Winslade, C. D. O., colour testing [of pigments], B., 293.
Winsloe, J. See Thomson, J.
Winslow, C. E. A. See Fabian, F. W.
Winslow, N. R. See Shepard, A. F.
Winstanley, A., m. p. determinations, A., 1205.
Winter, K. See Moser, L.
Winter, L. B., lactose excretion in the puerperium, and isolation of sugars from urine and blood, A., 947.
nature of blood-sugar, A., 1306.
Winter, O. B. See Huffmann, C. F.
Winter, R. M. See Imperial Chem. Industries, Ltd.
Winter, W. C., and Aluminum Co. of America, forming articles from heat-treatable aluminium-base alloys, (P.), B., 720.
Winterbottom, A. B., heat insulation, B., 589.
Winterer. See Hackspill, L.
Winterfeld, K., synthesis of 2-methylquinuclidine, A., 926.
Winterfeld, K., and Ipsen, W., sparteine. III., A., 1300.
Wintergerst, E., determination of the diffusion index of ammonia against air, A., 535.
Winternitz, R., cleaning of alkali lyes, (P.), B., 323.
Winternitz, R., and Stary, Z., micro-determination of proteins, A., 1199.
Winternitz, R. See also Stary, Z.
Winters, M. E. See Riecker, H. H.
Winterseel, W. See Bürger, M.
Winterstein, A. See Kuhn, R.
Winterton, R. J. See Partington, J. R.
Winterwerb, C., saturating and filling plants [for beverages], (P.), B., 439.
Winther, C., Becquerel effect. II., A., 165.
Winthrop Chemical Co., Inc. See Benda, L., Berendes, R., Johnson, T. B., Kollé, W., Kropp, W., Lauteuschläger, C. L., Lieske, R., Ludwig, W., Neubert, O., Pritchett, R. H., Schmidt, Hans, Schulemann, W., and Werner, R.
Winzer, C. B., continuous kiln, (P.), B., 420*.
carbonisation of coal, peat, wood, etc., (P.), B., 936.
Winzer, F. A., composition of cow's milk in nymphomania and piropiasmosis, B., 262.
Wirbatz, W. See Curtius, T.
Wirick, A. M. See Bills, C. E.
Wirshing, R. J., Faas, H. R., and General Motors Research Corporation, [nickel] electroplating process, (P.), B., 1077.
Wirth, F., and Küster, O., carbon monoxide; danger and determination, B., 265.
Wirth, J. K., production of chemically stable articles, (P.), B., 747*.
Wirth, W. See Rosenhaner, E.
Wise, H. See Talbot-Crosbie, J. B.
Wise, L. E., and Peterson, F. C., wood. II. Water-soluble polysaccharide of western larch wood, B., 503.
Wishart, J., and Mackenzie, (Miss) W. A., crop variation. VII. Influence of rainfall on yield of barley at Rothamsted, B., 876.
Wishart, J. See also Allan, F. E.
Wishart, J. M. See Garner, J. H.
Wishnoffsky, M., and Byron, C. S., carbohydrate metabolism in acromegaly, A., 1206.
Wislicenus, H., colloid-chemical structure of wood, A., 824.
Wislicenus, H. [with Kraess, A.], differential action of the blow-pipe flame on the red and white components of wood: its uses and behaviour, B., 52.
Wisner, C. B., and Coal Process Corporation, rotary furnace, (P.), B., 353*.
Wiss, J. E., Camp, T. P., and Ladoo, R. B., gypsum plaster in the ceramic industries, B., 665.
Wiss, W. See Thnm, A.
Wissihak, F., K-ionisation capacity of rapidly moving electrons, A., 972.
Wissler, W. A., and Haynes Stellite Co., coating for [iron] welding rods, (P.), B., 1116.
Witchell, I. S. See Leiboff, S. L.
Witgert, H. See Lipp, P.
Witherow, C. N. See Seil, G. E.
Withrow, J. R. See Reed, R. D.
Withycombe, S., differential thermostat for use in calorimetry, B., 267.
Witt, N. F. See Poe, C. F.
Wittandt, W. See Centnerszwer, M.
Witte, G. A., and International Precipitation Co., cementitious product and its manufacture, (P.), B., 375.
Witek, H., continuous production of calcium cyanamide, (P.), B., 324.
Wittel, O. See Kodak, Ltd.
Wittmeier, H., air filters, (P.), B., 170.
Wittmeier, H., and Schäfer, E. H., filters for gases, (P.), B., 888.
Wittenberger, M. See Pauli, W.
Wittig, G., and Leo, M., polarisation of the ethylenic linking, A., 762.
Witzemann, E. J., catalytic "coupling" of manganese dioxide with phosphoric or sulphuric acid as an oxidising agent; effect of acidity on the oxidation of butyric acid with hydrogen peroxide, A., 431.
Wlcek, E. See Penin Gummi-Waaren-Fabr. A.-G., P.
Wloczewski, T., annual variations in the reaction of forest soils, B., 473.
Wlostowska, W., polygalacturonic acid, A., 892.
Wlostowska, W. See also Smolenski, K.
Wöhler, L., platinum arsenide, A., 440.
Wöhler, L., and Berthmann, A., salts of fulminic acid. IV., A., 74.
purification and some properties of technical mercuric fulminate, B., 265.
Wöhler, L., and Weber, A., salts of fulminic acid. III., A., 74.
Wöhler, A., microburette, A., 447.
Wölcken, K. See Das, A. K.
Woelm, M., production of durable solutions of suprarenal preparations mixed with anaesthetics, (P.), B., 348.
Woernle, B., absorption of long wave-length X-rays of 2-10 Å. by light elements, A., 982.
Wohinz, R. See Ohle, H.
Wohl, A., and Bernreuther, E., derivatives of asparaginedialdehyde. I., A., 1021.
Wohl, A., and Westporoch, E., action of aluminium chloride on benzotrichloride, A., 1028.
Wohl, K., and Elbe, G., influence of water vapour on the heat radiation of exploding gaseous mixtures; specific heat of water vapour at high temperatures, A., 143.
Wohl, V. H., oxidised incandescence electrodes, (P.), B., 246.
Wohlenberg, W. J. See Erie City Iron Works.
Wohlgemuth, J., detection of necrosis of pancreatic tissue by determination of urinary diastase, A., 1207.
Wohnsiedler, H. P. See Romieux, C. T.
Woidich, K., determination of volatile acid in wine, B., 117.
micro-determination of sulphur dioxide in wine and fruit syrups, B., 682.
Woisin, H. E., reliability of the Reich-Raschig method of determining sulphur dioxide, B., 507.
Wojciechowska-Struszyńska, E., determination of aldehydes in rectified spirits, B., 682.
Wojnicz-Sianożęcki, Z., interpretation of the electrical nature of the linkings between carbon and hydrogen or other elements, A., 17.
Woker, G., and Blum-Sapas, E., peroxidase reaction during alcoholic fermentation, A., 375.
Wokes, F., stability of tincture of digitalis, B.P., as estimated by the frog method, B., 882.
Wokes, F., and Elphick, G. K., preparation of liquid extract of ergot, B., 347.
stability of infusion of digitalis, B.P., B., 585.
stability of salts of ergotoxine and ergotamine, B., 585.
Wolesensky, E., evolution of hydrogen sulphide from vulcanised rubber, B., 728.
Wolesleben, G. See Gen. Aniline Works, Inc.
Wolf, A., theory of the quadratic Stark effect of doublets and triplets, A., 831.
Wolf, A. See also Fraenkel, W., and Weidenhagen, R.
Wolf, C. G. L., determination of carbon in urine, A., 1058.
Wolf, H. See Bernhauer, K.
Wolf, Hermann, and Carburol Akt.-Ges., conversion of hydrocarbons and mineral oils having a high b. p. into those having a lower b. p., (P.), B., 181*.
Wolf, I. See Kuhn, W.
Wolf, Jarl. See Mark, H.

- Wolf, Kuno, and Praetorius, M., gel formation from silicio acid sols by means of acids, A., 857, 993*.
- Wolf, K. L., dipole moments of some organic molecules, A., 523.
- Wolf, K. L., principle of free rotation in optically active molecules, A., 1095.
- Wolf, K. L., Briegleb, G., and Stuart, H. A., Kerr effect, scattering of light, and molecular structure, A., 137.
- Wolf, K. L. See also Donle, H. L.
- Wolf, L. See Rassow, B.
- Wolf, L. (Berlin), determination of hydrogen-ion concentration in presence of neutral salts, A., 1391.
- Wolf, M., simultaneous electronic transitions in X-ray spectra, A., 1228.
- Wolf, Marie. See Hahn, M.
- Wolf Akt.-Ges., R., apparatus for increasing the vacuum in the drying zone of vacuum drum-filters, (P.), B., 170.
- internal heating of vacuum filter drums, (P.), B., 307.
- Wolfe, R. N., elliptical reflector for intensifying optically excited mercury radiation, A., 1266.
- Wolfer, J. A. See Nadler, W. H.
- Wolffes, O., occurrence of *d*-norisoeephedrine in *Catha edulis*, A., 508.
- occurrence of *l*-norephedrine and *l*-*N*-methylephedrine in European *Ephedra* species, A., 1224.
- Wolffes, O., and Ivers, O., harmine, A., 623.
- Wolffes, O. See also Merck, E.
- Wolff, A. See Rosenheim, A.
- Wolff, E. A. See Wilke-Dörfurt, E.
- Wolff, H. See Grimm, H. G.
- Wolff, Hans, viscosity of paints containing water, B., 468.
- influence of drying conditions on the resistance to weathering of paints, B., 778.
- viscosity of paints, B., 997.
- Wolff, Hans [with Zeidler, G., and Rosen, B.], basic lead sulphate, B., 519.
- Wolff, Hans, and Rabinowitz, J., [determination of tung oil], B., 467.
- Wolff, Hans, and Rosen, B., behaviour of softening agents towards nitrocellulose, B., 984.
- Wolff, Hans, and Zeidler, G., nitrocellulose lacquers, B., 204.
- Wolff, Hans, Zeidler, G., and Rabinowitz, J., determination of tung oil in stand oils, B., 292.
- Wolff, Hans. See also Schröter, K.
- Wolff, Hugo. See Gen. Aniline Works, and Grasselli Dyestuff Corp.
- Wolf, H. A. See Bergmann, E.
- Wolf, H. H., packing effect in atomic nuclei, A., 129.
- Wolf, H. W. See Fühthauer, C.
- Wolf, M. B. See Menshutkin, B. N.
- Wolf, R. R. See Goldschmidt, S.
- Wolf, W. See Richter, F.
- Wolf, W. A. See Fry, E. G.
- Wolf, W. W. See Susich, G. von.
- Wolf & Co., and Frowein, F., manufacture of *blanc fixe* and (A) sodium or (B) potassium nitrate, (P.), B., 187.
- Wolf & Co. Kommandit-Gesellschaft auf Aktien, Czapek, E., and Reitstötter, J., bandaging material, (P.), B., 183.
- Wolf & Co. Kommandit-Gesellschaft auf Aktien, Czapek, E., and Weingand, R., [multi-layer] sheet or strip material for packing, covering, decoration, etc., (P.), B., 280.
- Wolf & Co. Kommandit-Gesellschaft auf Aktien, and Weingand, R., increasing the impermeability to water of articles or products composed of regenerated cellulose, cellulose hydrate, or cellulose ethers which are not resistant to water, (P.), B., 237.
- treatment of films, sheets, bands, filaments, or other articles or products composed of regenerated cellulose, cellulose hydrate, or cellulose ethers which are not resistant to water, (P.), B., 319.
- manufacture of seamless flexible tubes from cellulose solutions, particularly viscose, (P.), B., 320.
- manufacture of composite sheet material, (P.), B., 368, 554.
- manufacture of [artificial resin] foils, films, etc., (P.), B., 572.
- production from cellulose hydrates of bodies such as capsules, oils, tubes, etc., which are capable of reversibly swelling, (P.), B., 899.
- cementing together lacquered cellulose foils which swell in water, (P.), B., 1105.
- Wolf & Co. Kommandit-Gesellschaft auf Aktien, Weingand, R., and Spiecker, F. W., production of a liquid- and moisture-proof transparent and flexible material, (P.), B., 11, 318.
- Wolfenstein, R., manufacture of derivatives of quinoline [atophan], (P.), B., 967*.
- Wolffe, M., new interpretation of the regularities in radioactive disintegrations, A., 130.
- multiple association in liquid dielectrics, A., 841.
- Wolffe, M., and Mazur, J., two modifications of liquid ethyl ether, A., 1554.
- Wolffe, M., and Rolinski, J., positive emission of palladium, A., 129.
- Wolfrom, M. L., fifth penta-acetate of galactose, its alcoholate and hydrate, A., 1023.
- Wolfrom, M. L., and Newlin, M. R., aldehydo-*l*-arabinose tetra-acetate, A., 1411.
- Wolfsohn, G., dispersion of gases and vapours and its explanation on the dispersion theory. II. Dispersion of mercury vapour between 7500 and 2650 Å., A., 1239.
- Wolfsohn, G. See Ladenburg, R.
- Wolinski, K., production of rich gas in a water-gas plant, (P.), B., 132.
- Wolker, W. See Berg, R.
- Wollak, R., iodometric analysis of a mixture of hyposulphite, sulphite, and thiosulphate, B., 417.
- Wollan, E. O., electron distribution of magnesium oxide, A., 834.
- Wollaston, T. R., gas producer and combined furnace, (P.), B., 854*.
- Wollenberg. See Wartenberg, H. von.
- Wollenberg, H., production of electrical energy in chemical plant without cost, B., 305.
- transportable electric stirrers, B., 1117.
- Wollmarker. See Kurschner, K.
- Wollschitt, H. See Ziegler, K.
- Wolochow, D. See Thorvaldson, T.
- Wolsey, Ltd. See Trotman, S. R.
- Wolter, A. See Lindemann, H.
- Wolter, E. See Auwers, K. von.
- Wolter, R. See Ohle, H., and Reilly, J.
- Woltersdorf, J., von Csiky's method for determining the lime requirement [of soils], B., 734.
- Woltersdorf, J. See also Vageler, P.
- Woltjer, H. R., Coppoolse, C. W., and Wiersma, E. C., magnetic susceptibility of oxygen as a function of temperature and density, A., 282.
- Woltjer, H. R. See also Wiersma, E. C.
- Woo, Y. H., intensity of total scattering of X-rays by monatomic gases, A., 1334.
- Wood, A. A. See Gerstley, J. R.
- Wood, A. E., and Mattox, W., modification of lamp method for determination of total sulphur in petroleum distillates, B., 402.
- Wood, A. R., and Leathwood, M. N., glasses transparent to ultra-violet radiation, B., 613.
- Wood, C. See Lepkovsky, S.
- Wood, C. B., pyrocatecholsulphonophthalein, A., 1290.
- solubilities of succinchlorimide, A., 1363.
- Wood, D. R., and Illing, E. T., sterilisation of sea-water by means of chlorine, B., 642.
- Wood, F. C. See Foulds, R. P.
- Wood, F. T. See Conrtaulds, Ltd.
- Wood, G. A. See Davis, N. R.
- Wood, H. C., open-hearth furnace steelworks; comparison of British and Continental installations and practice, B., 1068.
- Wood, J. H. See Buehler, C. A.
- Wood, J. H. J., machinery for grinding, mixing, and similar operations, (P.), B., 933*.
- Wood, J. K., calculation of tanks for high temperature and pressure, B., 123.
- Wood, L. J., X-ray study of constitution of copper-nickel-aluminium-manganese alloys, A., 1510.
- Wood, R. W., methods of excitation of Raman spectra, A., 14, 396.
- Raman lines of mercury in arc improbable, A., 521.
- improved technique for excitation of the Raman effect with special reference to gases, A., 521.
- plasmoidal high-frequency oscillatory discharges in "non-conducting" vacua, A., 653.
- Wood, R. W., and Dieke, G. H., Raman effect in gaseous hydrogen chloride, A., 978.
- Wood, R. W. See also Loomis, A. L.
- Wood, W. A., X-ray study of some tungsten magnet steel residues, A., 1503.
- X-ray examination of lithopones, B., 957.

- Wood, *W. H.*, wood vincer and its preparation, (P.), B., 949.
 Wood, *W. L.*, analysis of complex gaseous mixtures, B., 801.
 Wood, *W. L.* See also Wheeler, *R. V.*
 Wood, *W. R.*, apparatus wherein gases are passed over solids, (P.), B., 127.
 Wood, *W. R.*, and International Combustion Engineering Corporation, impact pulveriser, (P.), B., 86.
 Woodall-Duckham (1920), Ltd., Doulton & Co., Ltd., and Bailey, *C.*, [multiplo-type, regenerative] tunnel kilns, (P.), B., 1111.
 Woodall-Duckham (1920), Ltd., and Duckham, (*Sir*) *A. McD.*, tunnel kilns, (P.), B., 844.
 heating of materials in moving containers particularly applicable for destructive distillation, (P.), B., 1054.
 coko ovens, carbonising chambers, etc., (P.), B., 1100.
 apparatus for separating solids from liquids, (P.), B., 1135.
 Woodall-Duckham (1920), Ltd. See also Duckham, (*Sir*) *A. McD.*
 Woodward, *H. Q.*, factors influencing precipitation of colloidal lead, A., 157.
 comparison of silver and lead sols made by the Bredig method, A., 289.
 Woodcock, *W. G.*, Beckett, *E. G.*, Thomas, *J.*, and Scottish Dyes, Ltd., [anthraquinone vat] dyes, (P.), B., 1060.
 Woodcrete, Ltd., and Foster, *E. J.*, manufacture of composition board, etc., (P.), B., 193.
 Woodeson, *W. A.* See Clarke, Chapman & Co., Ltd.
 Woodford, *W. H.*, and Remington Arms Co., Inc., liquid coating composition [varnish for paper shells], (P.), B., 157.
 Woodhead, *A. E.*, esterified cotton, B., 411.
 Woodhouse, *D. L.*, and Pickworth, *F. A.*, oxygen capacity of the blood in mental disorders, A., 948.
 Woodman, *H. E.*, Bee, *J. W.*, and Griffith, *G.*, nutritive value of pasture. V. Pasture grass conservation: influence of artificial drying on the digestibility of pasture herbage, B., 637.
 Woodman, *H. E.*, Duckham, *A. N.*, and French, *M. H.*, value of dried sugar-beet pulp and molasses-sugar-beet pulp in the nutrition of swine; value of whole sugar-beet in the nutrition of swine, A., 107.
 Woodman, *H. E.* See also Codling, *A. J.*
 Woodman, *R. M.*, wetting, spreading, and emulsifying agents for use with spray fluids. I. Wetters and spreaders. II. Emulsifiers, B., 633.
 Woodman, *R. M.*, and Taylor, *E. McK.*, emulsifying powers of bentonite and allied clays, and of clays derived from these by base exchange and by hydrolysis, B., 434.
 Woodman, *R. M.* See also Tomkins, *R. G.*
 Woodroffe, *D.*, relationship between physical properties and chemical constitution. VI. Waterproofness of different sole leathers, B., 628.
 effect of neutral salts on the alkaline swelling of hide powder. I. Sodium chloride, B., 918.
 stripping effect of fat liquors on dyed leathers, B., 919.
 Woodroffe, *D.*, and Hill, *S. J.*, effect of acidity on the dyeing of leather, B., 629.
 Woodroffe, *F. K.*, heat exchangers for abstracting heat from waste furnace gases, (P.), B., 931.
 pulverising or crushing machines, (P.), B., 1134.
 burners for combustion of pulverised solid fuel, (P.), B., 1141.
 Woodrow, *H. W.* See Browning, *E.*
 Woodrow, *J. W.*, photographic activity of cod-liver oil, A., 1535.
 Woods, *G. M.*, and Poulter, *T. C.*, absorption of hydrogen bromide by cinnamic acid in presence of ultra-violet light, A., 717.
 Woods, *H.* See Lacey, *W. N.*
 Woodward, *F. L.*, pollution studies of the upper Mississippi River, B., 396.
 Woodward, *G. E.*, use of organic solvents for extraction of high-sulphur oils from crude petroleum, B., 228.
 Woodward, *J. E.*, and Kastenhuber & Lehrfeld, pen-point alloys, (P.), B., 915.
 Woodward, *L. A.*, Raman effect of nitric acid in solution, A., 1090.
 Raman effect in solutions of weakly ionised salts, A., 1343.
 Woog, *P.*, spreading of lubricants on solid surfaces; molecular influences; rôle of photolysis, B., 124.
 effect of oil on devitrified glass surfaces, and the detection of this defect in glass, B., 863.
 Woolcock, *J. W.* See Imperial Chem. Industries, Ltd.
 Woolf, *B.* See Mann, *P. J. G.*
 Woolf, *J. A.* See Leaver, *E. S.*
 Woolford, *F. B.*, electric [muffle] furnace, (P.), B., 108.
 Woollett, *G. H.*, and Everett, *C. H.*, di-iodothymol and the decomposition of its salts, A., 1574.
 Wooster, *C. B.*, and Mitchell, *N. W.*, alkali metal derivatives of phenylated methanes and ethanes, A., 464.
 action of sodium on β -chloro- $\alpha\alpha$ -triphenylmethane in liquid ammonia; rearrangement of an organo-alkali compound, A., 762.
 Wooster, *C. B.* See also Kraus, *C. A.*
 Worcester, *W. G.*, Saskatchewan clays of Dominion importance, B., 863.
 Working, *E. B.*, fermentation tolerance [and flour quality], B., 213.
 Workman, *E. J.*, variation of the specific heats of gases with pressure, A., 1508.
 World Bestos Corporation. See Nanfeldt, *W.*
 Wormald, *A.*, immunological specificity of chemically altered proteins; halogenated and nitrated proteins, A., 631.
 Worms, *J. P.* See Escaich, *A.*
 Wormwell, *F.* See Stuart, *J. M.*
 Worner, (*Miss*) *R. K.* See Schlesinger, *H. I.*
 Worrall, *A. G.* See Kolb, *L. J.*
 Worrall, *D. E.*, diphenyl series. I. Arsenic derivatives of diphenyl, A., 486.
 diphenyl series. II. Antimony derivatives of diphenyl, A., 938.
 diphenyl series. III. Phosphorus derivatives of diphenyl, A., 1195.
 Worrall, Ltd., *J. & J. M.* See Livsey, *H.*
 Worsley, *R. R. Le G.*, hydrogen-ion concentration of Egyptian soils, B., 474.
 Worssam, *R.*, boiling of worts, B., 737.
 Wosbutskaia, *A. E.* See Tiulin, *A. T.*
 Wouda, *J.* See Ornstein, *L. S.*
 Wozak, *H.*, nitrogen content of, and distribution in, leguminous plants during growth, B., 387.
 Wrangell, *M. von*, determination of plant-assimilable nutrients in soils, B., 833.
 determination of potash in very dilute solutions and in soil liquors, B., 1166.
 Wratschko, *F.*, determination of ether and alcohol in Spiritus ætherus and Tinctura valerianæ ætheræ, B., 484.
 Wrede, *B.*, is the continuous spectrum of the under-water spark temperature radiation? A., 126.
 Wrede, *E.*, concentration measurement in monatomic hydrogen, oxygen, and nitrogen, A., 394.
 Wrede, *F.*, and Mülhroth, *O.*, 1-chlorophenazine, A., 1449.
 Wrede, *H.*, use of dextrose in the manufacture of imitation parchment papers, B., 899.
 Wrenn, *S. N.* See Buck, *J. S.*
 Wreschner, *M.* See Chem. Fabr. auf Aktien (vorm. *E. Schering*).
 Wretblad, *P. E.*, X-ray investigation of the systems Fe_2O_3 - Cr_2O_3 and Fe_2O_3 - Mn_2O_3 , A., 849.
 Wright, *A.* See Osborn, *H. J.*
 Wright, (*Sir*) *A. E.*, interaction, A., 30.
 Wright, *A. H. J.*, sheets or slabs for building purposes, (P.), B., 1031.
 Wright, *A. M.*, and Askew, *H. O.*, calcium chloride in fellmongering practice, B., 114.
 colorimetric determination of vitamin-A in fats, B., 517.
 Wright, *C. C.* See Thompson, *T. G.*
 Wright, *C. H.*, correlations between the specific conductivities of soil extracts, nitric nitrogen, and soluble calcium, B., 832.
 Wright, *O. M.* See Imperial Chem. Industries, Ltd.
 Wright, *F. E.*, γ - and δ -rhamnolactones; crystallographic and optical properties, A., 744.
 Wright, *G. F.* See Gilman, *H.*
 Wright, *H. N.*, and Hirschfelder, *A. D.*, colloid chemistry of antiseptics and chemotherapy. II. Does an antiseptic adsorbed on protein still exert antiseptic action? A., 820.
 colloid chemistry of antiseptics and chemotherapy. IV. Duplication *in vitro* of the interference phenomenon in combination chemotherapy, A., 953.
 Wright, *H. N.* See also Hirschfelder, *A. D.*
 Wright, *J.* See Dunlop Rubber Co., Ltd.
 Wright, *J. H.* See Minaev, *M. G.*
 Wright, *L.* See Davies, *L.*
 Wright, *N.* See Nielsen, *J. R.*
 Wright, *R.* See Shearer, *A.*
 Wright, *S.*, apparatus for treatment of granular or pulverulent materials with gases, (P.), B., 444.
 Wright, *S. J.*, elasticity of Pintsch crystals of tungsten, A., 529.
 Wrightsman, *P. G.* See Du Pont de Nemours & Co., *E. I.*
 Wn, *H.* See Huang, *T. C.*

- Wührer, J., detection of isopropyl alcohol, B., 980.
- Wulfert, K., determination of small amounts of iodine in organic material rich in iron, A., 441.
- Wulfert, K. See also Lunde, G.
- Wülfing, J. A. See Wülfing, R. von.
- Wülfing, R. von, and Müller, E. (Wülfing, J. A.), manufacture of esters of [methyl-substituted] 2-phenylquinoline-4-carboxylic acids [atophans], (P.), B., 532.
- Wüllen-Scholten, W. van, measurement of colour-tone, B., 827.
- Wuensel, E. See Köppel, P.
- Wünschendorff, H., thioarsenites. I. Potassium compounds. II. Sodium and ammonium compounds. III. Alkaline-earth compounds, A., 48.
- Würth, K., what is zinc oxide? B., 569.
- Wüst, F., smelting process [for low-carbon cast iron], (P.), B., 427*.
- decomposition of carbon monoxide in the iron blast furnace, B., 559.
- Wüst, J., sensitive thermoregulator, A., 1394.
- Willot, A. See Bigwood, E. J.
- Wulf, H., effect of parasympathetic poisons on blood-sugar, A., 111.
- Wulf, O. R., temperature coefficient of the photochemical formation of hydrogen chloride, A., 553.
- band spectrum of ozone in the visible and photographic infra-red, A., 1226.
- Wulf, C. See Hofmann, F.
- Wulf, J., formation of precipitates, A., 35.
- Wulf, O. See Gen. Aniline Works, Inc.
- Wulf, P., and Kordatzki, W., instrument ["stato-ionometer"] for measuring and recording the concentration of hydrogen and other ions, employing the thermionic valve, B., 1077.
- Wulf, P., and Seidl, K., adsorption as the primary process of photographic development, A., 1534.
- Wulf, R. G., manufacture of acetylene and other [unsaturated hydrocarbon] products, (P.), B., 1056.
- Wulfhekel, H. See Seeliger, R.
- Wulfsolm, K. See Landsberg, G.
- Wunder, W. See Bernhoeft, K.
- Wunschendorff, H., ash of flowers of *Opuntia vulgaris*, Mill, A., 120.
- Wunsch, J. See Trénel, M.
- Wuorinen, J. See Komppa, G.
- Wurm, E., sialin as a softening agent in the rubber industry, B., 432.
- vulcanisation with sulphur chloride, B., 625.
- Wurm, K., the rotation structure of the bluish-green lithium bands, A., 1.
- structure of lithium red bands, A., 123.
- Wurm, K. See also Mecke, R.
- Wurm, V. See Meyer, Julius.
- Wurmser, R., energetic efficiency of photosynthesis, A., 46.
- Wurmser, R., and Geloso, J., active solutions of dextrose, A., 42.
- Wurster, C., technical manufacture of anhydrous aluminium chloride, B., 1026.
- Wurster, K., relation between the calcium content of Allgäu soils to the calcium content of milk and its coagulability by rennin, B., 964.
- Wurster, K. See also Mayr, E., and Rüdiger, M.
- Wurster, O. H. See Sanger, W. E.
- Wuyts, H., aldehydic reactions of dithiocarboxylic acids, A., 453.
- Wuyts, H., and Lacourt, A., conversion of *n*-propyl alcohol into propyl ethers by means of sulphuric acid, A., 889.
- Wyart, X-ray study of heulandite, A., 984.
- Wyckoff, R. W. G., X-ray scattering powers of nickel and oxygen in nickel oxide, A., 655.
- scattering power of elementary silicon for molybdenum and copper rays, A., 1333.
- Wyckoff, R. W. G., and Baker, L. E., action of X-rays on Eder's solution, A., 716.
- Wyckoff, R. W. G., and Corey, R. B., crystal structure of tetramethyl-, trimethyl-, and methyltriethyl-ammonium chlorostannates, A., 21.
- Wyczalkowska, (Frau) W., rate of decomposition of monobromosuccinic acid, A., 711.
- Wyk, A. van, orienting influence of magnetic field, wall and reciprocal action on the swarms of liquid crystalline *p*-azoxy-anisole, A., 402.
- Wylam, B., Harris, J. E. G., Thomas, J., and Scottish Dyes, Ltd., preparation of a reddish derivative of flavanthrone, (P.), B., 1145*.
- Wylam, B., Thomas, J., and Scottish Dyes, Ltd., esterification of cellulose materials, (P.), B., 369*.
- Wylam, B. See also Barnes, R. S.
- Wylde, W. D., coal burning [applied to steam production], B., 647.
- Wyler, J. A., and Trojan Powder Co., artificial fuel, (P.), B., 1011.
- concentration of nitrous gases, (P.), B., 1110.
- Wyler, J. A. See also Snelling, W. O.
- Wyler, M. See Brit. Dyestuffs Corp., Ltd., and Imperial Chem. Industries, Ltd.
- Wylie, A. W. See Pennell, R. H. L.
- Wyman, J. jun., measurements of the dielectric constants of conducting media, A., 666.
- Wyman, P. D. See Andrews, J. C.
- Wymore, I. J. See Epstein, S.
- Wynne-Jones, W. F. K., behaviour of hydrogen chloride in different solvents, A., 859.
- Wynn-Williams, C. E. See Rutherford, (Sir) E., and Ward, F. A. B.
- Wyrobek, O. See Marchlewski, L.
- Wyse, H. T. See Brown, G. M.
- Wysmann, K., influence of the thymus on the respiratory metabolism of rats during work, A., 253.
- Wyszogrod, Z. See Weil, S.

X.

- X, X., and Fonrobert, B., artificial copals [Albertols] as raw materials for modern varnishes, B., 676.

Y.

- Yada, T. See Yano, F.
- Yagi, H., electrolysis of gold, electrolytic reduction of silver chloride, bronze plating, cadmium plating, and plating with copper-cadmium alloy, B., 513.
- Yaginuma, T. See Takahashi, G.
- Yagoda, H., separation and identification of alkali and alkaline-earth metals using isoamyl alcohol, A., 1264.
- Yagoda, H., and Partridge, H. M., cesium sulphate as confirmatory reagent in detection of aluminium, A., 1393.
- Yaitschnikov, I. S., acid and alkaline hydrolysis of albumin, A., 1052.
- Yajnik, N. A., Goyle, D. N., and Bahn, C., stability of organo-metallic sols. I. Influence of electrolytes and non-electrolytes on coagulation, A., 1249.
- Yajnik, N. A., and Haksar, L. N., effect of electrolytes and non-electrolytes on the transparency of silicic acid gels, A., 33.
- Yajnik, N. A., Sharma, R. K., and Bhatnagar, M. C., chemical reactions [induced] by electrodeless discharge, A., 1134.
- Yajnik, N. A., and Tandon, G. L., gravimetric determination of potassium, rubidium, and caesium by the zirconium sulphate method, A., 881.
- Yajnik, N. A., and Uppal, H. L., temperature coefficients of some photochemical reactions in various solvents in the dark and in the light, A., 174.
- Yakamoto, R., utilisation of kaoliang stalk. III. Industrial experiments on the manufacture of soda-pulp and paper, B., 1104.
- Yakimach, A., complexes of the cyanide of quadrivalent manganese, A., 558.
- Yakimov, M. N. See Kotyukov, I. I.
- Yakovkin, G., dehydration of Glauber salt by aqueous ammonia, B., 140.
- Yale, M. W., control of bacteria that grow during pasteurisation [of milk], B., 263.
- Yamada, A. See Yoshimura, S.
- Yamada, F., relation between the liquidus lines of cast iron and its chemical composition, B., 463.
- Yamada, T., sludge of transformer oils. I. Formation factors of sludge, B., 272.
- sludge of transformer oils. II. Effect of heat on transformer oils in vacuum and in atmospheres of nitrogen, carbon dioxide, and hydrogen, B., 542.
- sludge of transformer oils. III. Catalytic effects of several metals on the formation of sludge and acids, B., 750.

- Yamada, T., sludge of transformer oils. IV. Effect of various metallic soaps of naphthenic acids on the oxidation of less refined insulating oils, with special reference to the anti-oxidative action of tin naphthenate, B., 976.
effect of various metallic soaps of naphthenic acids on the oxidation of highly refined transformer oils, with special reference to the antioxidative action of tin naphthenate, B., 976.
- Yamada, T. See also Mizushima, S.
- Yamaga, N., combustion velocity of smokeless powders, B., 395.
- Yamagawa, M., and Ibuka, B., sperm of the marine animal. III., A., 238.
- Yamagawa, M., and Ito, T., sperm of the marine animal. II., A., 238.
- Yamagawa, M., Mikawa, H., and Tomiyama, T., sperm of the marine animal. I. A., 238.
- Yamagawa, M., and Nakamura, N., marine mammals. II. Pancreas, A., 237.
- Yamagawa, M., and Nishimura, S., marine mammals. I. Adrenal of the whale, A., 237.
- Yamaguchi, F., Anderson, W. E., and Mendel, L. B., factors influencing distribution and character of adipose tissue in the rat. I. Influence of diet, weight, and sex on distribution of fat, A., 951.
- Yamaguchi, I. See Kaku, T.
- Yamaguchi, T. See Kimura, K.
- Yamamoto, E., velocity of decomposition of diazo-compounds in water. I.—VI., A., 300, 337, 426, 866, 1128, 1529.
- Yamamoto, H., blue absorption band spectrum of potassium, A., 651.
- Yamamoto, J. See Tasaki, S.
- Yamamoto, K. See Yoshino, E.
- Yamamoto, Kenichi. See Kobayashi, K.
- Yamamoto, Koshiro. See Kato, Y.
- Yamamoto, T., solubility of calcium sulphate in aqueous solutions of alcohols, A., 850.
- Yamanaka, T. See Kubota, B.
- Yamane, S., dehydration of calcium sulphate, A., 161.
- Yamasaki, I., desmolytic system of *Torula colliculosa*. II. Carboxylase, A., 643.
desmolytic system of *Torula colliculosa*. I. Glycolase and production of methylglyoxal, A., 643.
- Yamasaki, M., differences and relationships between varieties of wheat and barley in their resistance to the toxic action of potassium chlorate, B., 475.
- Yamashita, Masataro, steric hindrance in Hoesch reaction, A., 476.
syntheses of 4'-nitro-2:4:6-trihydroxybenzophenone dimethyl ethers and 4'-amino-2:4:6-trimethoxybenzophenone, A., 476.
- Yamashita, Matasaku. See Ueno, Sei-ichi.
- Yamashita, T. See Kami, Y.
- Yamatori, T., relation between hydrogen-ion concentration and the electric double layer, A., 697.
- Yamazaki, K., auriculoventricular junctional system of the heart. I. Glycogen content, A., 238.
- Yamazaki, T., ageing of vulcanised rubber. VIII. Action of sunlight filtered through coloured glasses on the mechanical properties of vulcanised rubber, B., 250.
- Yamazaki, T., and Okuyama, K., ageing of vulcanised rubber. XI. Oxidation of acetone-extracted vulcanised rubber, and the behaviour of the combined sulphur therein, B., 250.
ageing of vulcanised rubber. X. Relation between degree of oxidation of vulcanised rubber and occurrence of maximum acetone extract, B., 432.
- Yancey, H. F., and Fraser, T., coal-washing investigations—methods and tests, B., 800.
- Yancey, H. F. See also Johnson, K. A.
- Yano, F., and Yada, T., lactic acid content of the blood in pleuritis, A., 808.
- Yanovski, V. V., and Archangelski, P. A., heat capacity of pure sugar solutions, B., 634.
thermal capacity of sugar-factory products (solutions) and of sugar crystals, B., 1127.
- Yanovsky, E., sagittol; a new sesquiterpene alcohol, A., 1294.
- Yant, W. P., hydrogen sulphide in industry: occurrence, effects, and treatment, B., 1094.
- Yant, W. P., Schrenk, H. H., Waite, C. P., and Patty, F. A., acute response of guinea-pigs to vapours of some new commercial organic compounds. II. Ethylbenzene, B., 1094.
- Yant, W. P. See also Denny, E. H.
- Yao, W. N. See Paal, C.
- Yaoi, H., glutathione, cytochrome, and hydrogen-ion concentration in developing hen embryos, A., 367.
- Yarwood, C. See Newton, W.
- Yasada, and Sato, A., detoxicating hormone [yakriton] of the liver. XVII. Prophylactic effect of yakriton against phenol intoxication, A., 1624.
- Yasuda, M., effect of secretin on blood-sugar, A., 1319.
- Yater, W. M., Osterberg, A. E., and Hefke, H. W., glycogen ratio in the bundle of His and the cardiac muscle in man and the horse, A., 945.
- Yater, W. M. See also Boeck, W. C.
- Yates, J. W., and General Laboratories, Inc., process of sterilisation, (P.), B., 881.
- Yates, R. C., small vibrations of six particles in a system analogous to the benzene ring, A., 1349.
elastic character of the homopolar chemical linking, A., 1349.
- Yates, W. H. See Alliance Artificial Silk, Ltd.
- Yatlov, V. S., preparation of potassium dichromate from Solikamsk sylvite, B., 417.
- Yaxley, R. G., scientific control [of water-purification plant] from the operator's viewpoint, B., 534.
- Yeager, J. F. See Ponder, E.
- Yee, J. Y., converter for the oxidation of ammonia with pure oxygen, B., 140.
- Yensen, T. D., electrolytic iron from sulphide ores, B., 564.
- Yerbury, H. E., corrosion of metals and its prevention, B., 14.
- Yen, K. See Brenans, P.
- Yntema, L. F., rare earths. XXXV. Separation of europium by electrolytic reduction, A., 1134.
- Yntema, L. F., and Audrieth, L. F., acetamide and formamide as solvents for electrodeposition of metals, A., 1134.
- Yntema, L. F. See also Audrieth, L. F., and Peirce, D. D.
- Yoe, J. H., adsorption of arsenious acid by hydrous ferric oxide, A., 1109.
- Yofe, J. See Weizmann, M.
- Yoganandam, E. See Choudary, K. S.
- Yokochi, M. See Sato, M.
- Yokota, T., peptone shock. III. Substance which causes the so-called peptone blood. IV. and V. Alcohol-soluble (blood-depressive) substances in peptone, A., 1064.
- Yokota, T. See also Ogawa, T.
- Yoldi, F. [with Jimenez, D. L. de A.], system lead-silver, A., 1509.
- Yone, P. P., and Koshring, Co. [concrete] mixing machine, (P.), B., 1067.
- York, H. W., and American Smelting & Refining Co., apparatus for refining metals [lead], (P.), B., 19.
- Yorke, W. See Brit. Celanese, Ltd.
- Yoshida, K., occurrence of glycogen in a rabbit with experimental diabetes, A., 807.
- Yoshida, M., water intoxication, A., 1471.
- Yoshida, S., microbial metabolism of carbohydrates. I Mechanism of fermentation, A., 602.
- Yoshida, Y., effect of transplanted tumours on basal metabolism, A., 365.
- Yoshima, J. See Keimatsu, S.
- Yoshimarn, Y. See Izume, S.
- Yoshimatsu, S., colorimetric determination of calcium with 0.1 c.c. of blood, A., 1607.
- Yoshimoto, K., and Takahashi, M., pleuritis, A., 808.
- Yoshimura, K., and Nishida, Kotaro, constituents of liver of aquatic animals. II. Nitrogenous compounds of the liver of the bonito, *Katsuwonus vagans*, Lesson, A., 1608.
- Yoshimura, S., nitrogen content of the bile and its relation to that of urine, A., 239.
allantoin in dog's bile, A., 239.
- Yoshimura, Seisho, Nishida, Kotaro, and Yamada, A., sardine waste products, B., 483.
- Yoshinaka, K., cholesterol content of blood-forming organs, A., 491.
- Yoshino, E., and Seki, K., preparation of soy sauce from soya-bean cake. II., B., 1129.
- Yoshino, E., Seki, K., and Yamamoto, K., preparation of soy sauce from soya-bean cake. III. Composite Y-type fermentation, B., 1129.
- Yoshioka, E., buoyant and oil-proof india-rubber, (P.), B., 251*.
- Yoshitoshi, T., presence of bios in lotus fruit believed to be several hundred years old, A., 826.
- Yoshizawa, K. See Nagai, S.
- Yosida, J. See Kawada, G.
- Yost, D. M., K-absorption discontinuities of manganous and chromate ions, A., 127.

- Youker, *M. P.*, rectifying process [for hydrocarbons], (P.), B., 231.
- Younts, *J. B.*, and Trimble, *W. H.*, ergotamine. I. Effect of ergotamine on the blood-sugar and adrenaline hyperglycaemia in trained unanaesthetised dogs, A., 497.
- Young, *A. E.*, and Dennis, *G. P.*, fuel burners for steam generators, metallurgical furnaces, etc., (P.), B., 134.
- Young, *A. G.* See Taylor, *F. H. L.*
- Young, *C. H.* See Ernst, *F. A.*
- Young, *C. L.* See Robinson, *H. R.*
- Young, *D. J.*, and Young-Whitwell Gas Process Co., manufacture of water-gas, (P.), B., 852.
- Young, *F. W.*, filtering device, (P.), B., 1138*.
- Young, *G. W.* See Briscoe, *H. V. A.*
- Young, *H. C.* See Dunlop Rubber Co., Ltd., Liming, *O. M.*, and Macintosh & Co.
- Young, *H. D.*, effect of various fumigants on the germination of seeds, B., 258.
- Young, *H. J.*, and Swan, Hunter & Wigham Richardson, Ltd., regeneration or purification of lubricating oils, (P.), B., 408*.
- Young, *J.* See Drysdale & Co., Ltd.
- Young, *James*, orientation of kamacite in meteoric irons, A., 1398.
- Young, *J. H.* See Shriner, *R. L.*
- Young, *L. A.* See Goudsmit, *S.*
- Young, *N.*, coolers for rotary furnaces, (P.), B., 489.
- Young, *O. E.* See Klein, *L.*
- Young, (*Miss*) *P.* See Willard, *H. H.*
- Young, *P. L.*, and Standard Oil Development Co., treatment [oxidation] of hydrocarbons, (P.), B., 48.
- Young, *R. C.* See Norris, *J. F.*, and Schumb, *W. C.*
- Young, *W. G.*, and Lucas, *H. J.*, composition of butene mixtures resulting from the catalytic decomposition of *n*- and sec-butyl alcohols, A., 888.
- Young, *W. G.* See also Dillon, *R. T.*, and Lucas, *H. J.*
- Young, *W. J.*, micro-Kjeldahl method, A., 359.
- Young-Whitwell Gas Process Co. See Young, *D. J.*
- Younger, *J. M.*, dehydrator, (P.), B., 222.
- Youtz, *M. A.*, and Perkins, *P. F.*, tetramethylethylene sulphide, A., 61.
- trimethyl- and trimethylethyl-thiophen, A., 93.
- effect of refining agents and fused caustic alkali [alkali hydroxide] on [pure organic] sulphur compounds in naphtha solution, B., 698.
- Yrastorza, *A.* See Marticorena, *A.*
- Yu, *T. L.*, separation of the iron-aluminium group, A., 1149.
- Yuasa, *D.*, significance of plant sterols for animal organisms. VII. Sterol absorption, measured in the blood of the portal vein, A., 108.
- Yuasa, *K.*, process of failure of metals under stress, B., 867.
- Yudkin, *A. M.* See Krause, *A. C.*
- Yuh, *L.*, physico-chemical alteration of the blood by intravenous bacterial toxins and non-specific protein, A., 503.
- Yukimori, *T.* See Ueno, *Sei-ichi.*
- Yumoto, *K.*, spark ignition of low inflammable gas mixtures, A., 167.
- Yumoto, *R.* See Fuseya, *G.*
- Yushkevich, *N. F.*, Solvay soda process, B., 1108.
- Yushkevich, *N. F.*, Aydeev, *A. V.*, Shokin, *J. N.*, Oleney, *V. S.*, and Itkin, *D. Y.*, preparation of the salt-ammonia solution and its treatment in the manufacture of soda by the Solvay process, B., 1107.
- Yushkevich, *S.*, determination of iodine value by Margosches' rapid method, B., 155.
- comparison of the Hanus and Kaufmann methods for determination of iodine value, B., 291.
- bromometry of fats and oils, B., 776.
- determination of iodine values, B., 1036.
- Yushkevich, *S.* See also Kaufmann, *H. P.*
- Z.
- Zabicki, *S.* See Wasilewski, *L.*
- Zablocki, *B.* See Bekier, *E.*
- Zaccagnini, *A.* See Nuccorini, *R.*
- Zacharias, *E. R.* See Herrmann, *J.*
- Zacharias, *P. D.*, problem of tanning, B., 1041.
- Zachariasen, *W. H.*, crystal structure of the λ -modifications of sesquioxides of the rare earths, A., 139.
- crystal structure of potassium chlorate, A., 671.
- Zachariasen, *W. H.*, crystal structure of sodium chlorate, A., 671.
- crystal structure of sodium perchlorate, A., 1351.
- structure of thortveitite, $\text{Sc}_2\text{Si}_2\text{O}_7$, A., 1351.
- structure of titanite, A., 1351.
- Zacharov, *J. P.*, reduction phenomena in lactic acid fermentation, A., 960.
- acetone fermentation; *Bacillus macerans*, A., 1621.
- Zacharov, *J. P.* See also Schaposchnikov, *V. N.*
- Zacharov, *S. A.*, dynamics of soil solutions in podsol areas, B., 576.
- Zacharova, *T. M.*, reduction of nitrates in arable soils, B., 341.
- Zadik, *P.*, chemotherapy of transplanted and spontaneous tumours, A., 1611.
- Zadoc-Kahn, (*Mlle.*) *J.*, magnetic birefringence of *p*-azoxyanisole at temperatures above the point of disappearance of the mesomorphic state, A., 524.
- Zäch, *C.* See Werder, *J.*
- Zagoniari, *J. N.* See Matthaiopoulos, *G. T.*
- Zaharia, *A.*, and Lucatu, *E.*, ultrafiltration of petroleum, A., 1366.
- Zaheer, *S. H.* See Freudenberg, *K.*
- Zahl, *H. A.*, reflexion of cadmium and zinc atoms from sodium chloride crystals, A., 1494.
- Zahlova, (*Mlle.*) *L.*, condensation of β -diaminobutane with carbon disulphide, A., 459.
- Zahlová, (*Mlle.*) *L.* See also Frejka, *J.*
- Zahn, *C. T.*, dielectric constant and molecular structure of carbon disulphide, A., 666.
- evidence for quantisation from the electric polarisation of acetic acid vapour, A., 841.
- extension of Van Vleck's theory of dielectric polarisation, A., 841.
- simple manometer and source for hot vapours, A., 885.
- Zahn, *H.*, large mobility of hydrogen and hydroxyl ions in aqueous solutions, A., 36.
- conception of the Hall effect, A., 1353.
- Zahn, *K.* See Gen. Aniline Works, Inc., and Grasselli Dyestuff Corp.
- Zahn, *O.*, rapid film evaporator for unstable liquors and extracts, B., 843.
- Zahn, *R.* See Schmidt, *M. P.*
- Zahn & Co., G.m.b.H. See Klöhn, *E.*
- Zahnd, *H.*, and Clarke, *H. T.*, determination of sulphur in organic compounds, A., 1303.
- Zahradníček, *J.*, relativistic *L*-doublet in the X-ray region, A., 513.
- elementary theory of the Zeeman effect, A., 1076.
- measurement of the activity of radium emanation by a torsion balance, A., 837.
- Zahradníček, *J.*, and Vlach, *B.*, method of observing the Raman effect in liquids, A., 396.
- Zaidan Hoin Rikagaku Kenkyujo, powdered insecticide containing active ingredients of the root of the *Derris* species, (P.), B., 75.
- Zaidan Hoin Rikagaku Kenkyujo. See also Isobe, *H.*, Kujirai, *T.*, Otori, *T.*, Setoh, *S.*, and Suzuki, *T.*
- Zain, *H.*, influence of alkaloids on the flocculation optimum of lecithin, A., 160.
- Zain, *H.* See also Labes, *R.*
- Zaitschek, *A.*, feeding value of reed silage, B., 346.
- Zaitschek, *A.* See also Weiser, *S.*
- Zak, *H.* See Fröschl, *N.*
- Zakarias, *L.*, physico-chemical principles of washing materials [soaps], B., 777.
- rapid countercurrent mixer, B., 931.
- colloid chemistry of laundering, B., 1062.
- Zakharov, *A. I.*, preparation of 2:4-dinitrophenol from benzene and nitric acid in presence of mercury salts as catalysts. II., A., 1176.
- Zaki, *A.*, oxidation of *p*-aminophenyltrimethylammonium methosulphate and some quaternary ammonium derivatives, A., 905.
- benzoic esters and electronic affinities of radicals. II. Halogenoalkyl benzoates, A., 1578.
- Zakrzewski, *K.*, and Naylor, *T.*, refraction of electric waves ($\lambda = 12$ cm.) in some electrolytes, A., 667.
- Zaleski, *J. Z.* See Wasilewski, *L.*
- Zaleski, *V.*, and Schatalova-Zaleskaja, *E.*, decomposition of hexoses in plants. V. Content and activity of oxidoreductase of plants; connexion between anoxybiosis and oxybiosis, A., 119.
- Zall, *C.* See Kohman, *E. F.*
- Zamaron, *J.*, filtration of juices, syrups, and molasses in [beet] sugar manufacture, B., 210.
- liberation of ammonia at different stages of [beet sugar] manufacture, B., 211.

- Zamaron, J., dextrorotatory substances other than sucrose in [French] beets of 1929, B., 343.
 dextrorotatory matters other than sucrose in [French] beets harvested in 1929-1930, B., 1084.
 evolution of ammonia during evaporation [of beet-sugar juices], B., 1084.
 physico-chemical purification of sugar products by activated carbons in presence of sulphurous and phosphoric acids, B., 1084.
 use of "lystonol" in beet-sugar manufacture, B., 1085.
- Zambonini, F., and Ferrari, A., identity of crystalline structure of cancrinite of Monte Somma with that of Mias (Urals), A., 1397.
- Zambonini, F., and Restaino, S., double sulphates of metals of the rare earths and of the alkali metals. XIII. Sulphates of praseodymium and ammonium, A., 1387.
- Zanden, J. M. van der. See Backer, H. J.
- Zanetti, G. See Vecchiotti, L.
- Zannis, C. D. See Englis, D. T.
- Zapata y Zapata, C., molecular size and solubility in acetone of cadmium iodide, and mercuric chloride, bromide, and iodide, A., 1362.
- Zapffe, C., [treatment of] manganese ore by the Bradley process, B., 15.
- Zapolski, V. V., mercuri-iodides of pyridine, A., 1594.
 determination of nicotine as $C_{10}H_{14}N_2.HgI_2$, B., 120.
- Zappelli, E., use of "carboraffin" [decolorising carbon] in the sugar industry, B., 29.
- Zappi, E. V., support for m.p. tubes, A., 729.
 action of arsenic chloride on ethyl sodiummalonate, A., 899.
 constitution of cyanogen halides. I. Reactions of cyanogen chloride and iodide, A., 1027, 1277*.
 constitution of cyanogen halides. II. Refractometric investigation of cyanogen chloride and iodide, A., 1171, 1277*.
 addition of halogens to allyl alcohol, A., 1270.
- Zappi, E. V., and Deulofeu, V., decomposition of phenyl iodide dichloride. I., A., 79, 201.
 decomposition of phenyl iodide dichloride. II. Action of allyl alcohol on phenyl iodide dichloride, A., 758, 1172*.
- Zappi, E. V., and Manini, A., solubility of arsenious oxide in ethyl malonate and its volatility in the vapour, A., 150.
 rapid combustion of organic substances, A., 940.
- Zaprometov, B. G. See Dumanski, A. V.
- Zathey, J., and Towarzystwo Zakładów Chemicznych "Strem" Spółka Akcyjna, device for mechanically emptying superphosphate chambers, (P.), B., 557.
- Zavaro, N., and Spinguez, A., enamelling of fibro-cement and similar material, (P.), B., 190.
- Zawadzki, B., distribution of crystalloids in colloidal systems similar to cytoplasm, A., 414.
- Zawadzki, M. See Szperl, L.
- Zaycoff, R., relativistic electron, A., 658.
- Zaykovsky, J., and Alexeev, P., catalase of milk. I. Determination of milk catalase by potassium permanganate titration, A., 1473.
- Zbinden, C. See Dutoit, P.
- Zboray, B. See Stasiak, A.
- Zdunkiewicz, J. M., decomposition of purines under various conditions of autolysis, A., 957.
- Zé, N. T., influence of X-rays, according to Allison, on the magnetic rotatory polarisation and on the properties of inactive liquids, A., 1238.
- Zé, N. T. See also Chalonge, D.
- Zeavin, S. See Stansfield, E.
- Zebrowski, S. P., spectrographic investigation of the corona effect, A., 5.
- Zebulske, E. A. See Maynes, H. F.
- Zeche M. Stinnes, production of light oils by cracking of low-temperature tar, (P.), B., 93.
 distillation of wash oil, (P.), B., 805.
- Zechmeister, L., and Cholnoky, L. von, colouring matter of paprika. IV. Rearrangement of capsaanthin, A., 479.
 pigment of the ripe berries of *Tamus communis*, A., 506.
 lycopenes from *Solanum dulcamara*, A., 827.
 colouring matter of boxthorn berries and the occurrence of chemically combined carotenoids in nature, A., 1044.
 condition of the carotenoids containing oxygen in plants, A., 1224.
- Zechmeister, L., and Szilárd, K., carotenoid from the seed-hulls of the spindle-tree (*Euonymus europæus*), A., 1323.
- Zechmeister, L., and Tuzson, P., compound of sterol nature from the sepals of the sunflower, A., 1627.
- Zeh, L. See Gen. Aniline Works, Inc.
- Zeh, W. See Vorländer, D.
- Zehenter, J., and Flass, F., mixed aromatic hydroxysulphones. II. Hydroxyphenyl- α -hydroxytolylsulphones, A., 1284.
- Zehm, R. C., oil firing of refractories, B., 144.
- Zehnder, L., what conclusions must classical physics and chemistry draw from the principle of greatest simplicity? A., 1234.
- Zehring, W. S. See Suhr, C. L.
- Zeide, O. A., and Gorski, I. M., preparation and properties of derivatives of phenarsazine, A., 626.
- Zeidler, G. See Wolff, Hans.
- Zeile, K., kinetics of hydrogen peroxide decomposition by porphyrin-metal complex salts, A., 1001.
- Zeile, K. See also Euler, H. von.
- Zeiser, H. See Ziegler, K.
- Zeiss, C., photometer [for astronomical purposes], (P.), B., 84.
 refractometers for liquids, (P.), B., 695.
 methods of making selenium cells, (P.), B., 916.
- Zeiss, C. See also Pfeiffer, F.
- Zeisset, W. See Abderhalden, E.
- Zeleny, J., singular behaviour of stria in the positive column of an electrical discharge through hydrogen, A., 654.
 potential relations in the striated positive column of electrical discharges through hydrogen, A., 656.
 ions produced by discharges at liquid surfaces, A., 658.
 mobilities of ions in dry and moist air, A., 1231.
- Zeleny, L. See Traub, H. P.
- Zelinski, N. D., and Borisov, P. P., auto-oxidation of cyclohexene by oxygen, A., 1422.
- Zelinski, N. D., and Friemann, M. G., synthesis of cyclooctane and its behaviour when catalytically dehydrogenated, A., 1028.
- Zelinski, N. D., and Schuikin, N. I., spirocyclodecane and its catalytic isomerisation, A., 587*.
- Zelinski, N. D., and Titz, I. N., formation of aromatic hydrocarbons by dehydrogenating catalysis, A., 80.
- Zelinski, N. D., and Turova-Pollak, M. B., osmium as hydrogenating catalyst, A., 77.
- Zeller, H., Wedemann, W., Lange, L., and Gildemeister, E., so-called low pasteurisation of milk, B., 528.
- Zeller, P. J. A. See Fischer, A. J.
- Zellner, H., culinary rock-salt, B., 371.
 wine distillates and wine brandies, B., 963.
- Zellner, J., and Zikmunda, E., chemistry of halophytes. II., A., 1626.
 chemistry of higher fungi. XXI. *Polyporus sulfureus*, L., and *Lentinus squamosus*, Schroet, A., 1627.
- Zellner, J. See also Fröschl, N.
- Zellstoffabrik Waldhof, and Bernstein, Arnold, manufacture of artificial threads, bands, films, etc., from viscose solutions, (P.), B., 1105.
 production of artificial silk, etc., from viscose solution; twisting and reeling of artificial silk, (P.), B., 1146.
- Zellstoffabrik Waldhof, and Faust, O., manufacture of sodium sulphite or bisulphite solutions, (P.), B., 1150.
- Zellstoffabrik Waldhof, Faust, O., and Hottenroth, V., improvement of cellulose raw material, (P.), B., 456, 944.
- Zellstoffabrik Waldhof, and Lührs, O., production of absolute alcohol, (P.), B., 1128.
- Zellstoffabrik Waldhof. See also Lührs, O.
- Zemansky, M. W., absorption and collision broadening of the mercury resonance line, A., 1228.
 effective cross-sections for the quenching of mercury resonance radiation, A., 1495.
- Zemlyanitzin, V., and Dobrovolski, P., action of boiling barium chloride solutions on metals, B., 1033.
- Zemplén, G., action of mercury salts on acetohalogeno-sugars. III. Synthesis of cellobiosio octamethyl ether, A., 1167.
- Zemplén, G., and Csűrös, Z., [action of nitrosyl bromide on amino-acids], A., 328.
- Zemplén, G., and Nagy, Z. S., action of mercury salts on acetohalogeno-sugars. II. Conditions for the formation of α -phenyl-cellobioside, A., 456.
- Zemyatchenski, P. A., Cambrian "blue" clay, A., 1155.
- Zener, C., analytic atomic wave functions, A., 1234.
- Zener, C. See also Guillemin, V., jun.
- Zenghelis, G., ancient bronzes, B., 561.
- Zenthoeffer, J. V. See Sweetland, E. J.

- Zerban, F. W., and Sattler, L., effect of dextrose and sucrose on the determination of levulose by Nijn's method, A., 1165.
- Zerban, F. W., and Sattler, L., ash and electrical conductivity of syrups and molasses derived from sugar cane, B., 387.
- unified conductometric method for determination of ash in refinery syrups, B., 925.
- Zerner, E., catalytic oxidation of paraffin and mineral oil, B., 543.
- Zernike, J., rare earths, A., 874.
- Zervas, L., synthesis of styrcitol, A., 1160.
- Zerzog, L. See Herrmann, G.
- Zettergren, B., machine for kneading, crushing, and similar operations, (P.), B., 745.
- Zeyen, K. L. See Bardenheuer, P.
- Zhdan-Pushkin, M., oil from Kuban *Perilla ocumoides* seeds, B., 1163.
- Zhirnova, L. V. See Vassiliev, N. A.
- Zhokovskaia, M. D. See Shakhno, A. P.
- Zhuse, V. P., thermal conductivity of petroleum products, B., 402.
- Zhuse, V. P. See also Tikhomirov, V. I.
- Ziegelmayer, W., gelation of fruit juices, B., 881.
- Ziegler, E. E., specific effect of bile salts on pneumococci and on pneumococcus pneumonia, A., 1622.
- Ziegler, K., problem and results of the newer investigations of free radicals, A., 1502.
- Ziegler, K., and Colonius, H., organo-alkali compounds. V. Synthesis of simple lithium alkyls, A., 590.
- Ziegler, K., Ewald, L., and Orth, P., trivalent carbon. X. Velocity of dissociation of hexaphenylethane, A., 711.
- Ziegler, K., and Mathes, W., trivalent carbon. IX. Triaryl-methyls containing electro-positive and -negative substituents, A., 762.
- Ziegler, K., and Sauermilch, W., syntheses of arylated allene derivatives, A., 1182.
- Ziegler, K., and Schäfer, O., organo-alkali compounds. VI. Mode of reaction of solid alkali metals, A., 590.
- Ziegler, K., and Wollschitt, H., carbonium electrolytes, A., 545.
- organo-alkali compounds. IV. Electrolytic character of organo-alkali compounds, A., 590.
- Ziegler, K., and Zeiser, H., organo-alkali compounds. VII. Alkali metal alkyls and pyridine, A., 1191.
- Ziegler, N. A., production and properties of large iron crystals, A., 1008.
- Ziegler, W. See Jung, G.
- Ziegner, E. von. See Butenandt, A.
- Zieler, H. See Bahr, H.
- Zieley Processes Corporation. See Gibb, J. A.
- Zielstorff, and Burow, effect of different nitrogenous fertilisers as influenced by soil reaction, B., 74.
- Zielstorff, W., and Nehring, K., hay-making on Swedish dryers, B., 209.
- physiological reaction of potash salts, B., 734.
- Ziemecki, S. L., and Narkiewicz-Jodko, K., Raman effect in the neighbourhood of the critical point, A., 14.
- Raman effect in the proximity of the critical point, A., 839.
- Ziemecka, J., I. Microbiological analysis of soil fertility. II. Role of phosphorus in nitrogen fixation. III. Microbiological determination of the soluble phosphate requirement of soils, B., 160.
- Zieren, M. See Aten, A. H. W.
- Ziersch, G. See Haller, R.
- Zies, E. G., Valley of Ten Thousand Smokes. I. Fumarolic incrustations and their bearing on ore deposition. II. Acid gases contributed to the sea during volcanic activity, A., 1155.
- Zih, A. See Bencsik, F.
- Ziip, C. van, microchemical contributions, A., 629.
- Zikmunda, E. See Fröschl, N., and Zellner, J.
- Zilberfarb, M. I. See Muchin, G. E.
- Zilva, S. S., antiscorbutic fraction of lemon juice. VIII., A., 256.
- Zilva, S. S. See also Bracewell, M. F., and Crawford, M. E. F.
- Zimakov, P. V., catalytic formation of hydrogen cyanide from ammonia and carbon monoxide, A., 43.
- Zimmer, D. C., and Neff, J. M., studies of $\text{BaO-Al}_2\text{O}_3\text{-SiO}_2$ and $\text{ZnO-Al}_2\text{O}_3\text{-SiO}_2$ separately with eutectics, KNaO-felspar eutectic, and $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$ eutectic, A., 162.
- Zimmer, F., practical evaluation of nitrocellulose lacquers, B., 726.
- solvents and non-solvents for nitrocellulose, B., 1119.
- Zimmer, J. C. See Brown, D. J.
- Zimmerman, E. E., influence of temperature on polarisation capacity and resistance, A., 545.
- Zimmerman, R. E. See Holden, J. H.
- Zimmermann, A. See Ruggli, P.
- Zimmermann, B., application of polarography to sugar-factory analysis, B., 925.
- analysis of refined sugars, B., 925.
- influence of sugars and non-sugars on the oxygen-maximum of polarographic curves, B., 925.
- Zimmermann, K. See Sabalitschka, T.
- Zimmermann, S., manufacture of soaps containing fat solvents, (P.), B., 1037.
- Zimmermann, S., and "Henry" Seifen-, Kerzen-, und Fettwarenfabr. G.m.b.H., preparation of soaps containing a fat-solvent, (P.), B., 518.
- Zimmermann, W., specific colour reaction for histamine, A., 508, 648.
- test for small amounts of glycine, A., 897.
- quinizarinsulphonic acid (rufanic acid) as precipitant. I. and II., A., 941, 1170.
- peculiar action of photographic flashlight, A., 1550.
- anthraquinone derivatives as base precipitants, A., 1605.
- Zimmermann, W. See also Frankenburger, W., Stock, A., and Weyde, E.
- Zimmermann, W. O., manufacture of concrete, (P.), B., 146.
- Zimpell, K., naphthalene and water in [coal] gas, B., 356.
- Zindel, E., volumetric determination of carbon in difficultly combustible iron and steel alloys, B., 14.
- Zingl, A. See Balthasar, K.
- Zinke, A., and Benndorf, O., perylene and its derivatives. XXX. A., 1587.
- Zinke, A., and Bensa, F., manufacture of chloroperylenequinones, (P.), B., 51*.
- Zinke, A., and Wenger, R., perylene and its derivatives. XXVIII. A., 608.
- perylene and its derivatives. XXIX. Degradation of perylene to benzanthrone, A., 1587.
- Zinn, W. H. See Gray, J. A.
- Zinoviev, A., [paint] siccative, B., 1164.
- preparation of varnish oil by dehydration, B., 1164.
- Zintl, E., potentiometric determination of gold, A., 1265.
- Zintl, E., and Neumayr, S., behaviour of the quinhydrone electrode in liquid ammonia, A., 297.
- simple cryostat, A., 314.
- Zintl, E., and Rlenäcker, G., existence of a volatile oxide of bromine, A., 878.
- Zinzadze, R., colorimetric determination of phosphoric and arsenic acids, A., 725.
- condenser for extraction and distillation apparatus, A., 730.
- Zinzadze, S. R., determination of fat. II. Determination of neutral fat in animal substances. III. Extraction apparatus, A., 1057.
- two new ultrafiltration funnels for rapid filtration, B., 844.
- Zinzer, A. See Fries, R. W.
- Zipt, K., is the inhibition of caffeine action on muscle by sodium salicylate and novocaine hydrochloride due to complex formation? A., 639.
- Zipt, K., and Wagenfeld, E., pharmacological action of fresh defibrinated blood. I. and II. Preparation and action of active principle, A., 811.
- Zipperer, and Lorenz, reproduction of coke sections, B., 974.
- Zipperer, L., and Müller, Georg, calculation of the density of gases in the dry state, A., 1357.
- Ziroulsky, B., formaldehyde tanning, B., 523.
- Zisch, W., and Roessler & Hasslacher Chemical Co., manufacture of oxygen preparations [for use in respirators], (P.), B., 662.
- Ziser, G. J. See Chappell, M. L.
- Zitella, W., fume-treating device, (P.), B., 3.
- Zitscher, A. See Gen. Aniline Works, Inc., and Laska, L.
- Zlatarov, A., zinc and cancer, A., 634.
- Zlotowski, I. See Swientoslowski, W.
- Zmaczynski, A., and Bonhoure, A., b. p. of water as a function of the pressure, A., 143.
- Zobell, C. E., and Meyer, K. F., metabolism of the *Brucella* group in synthetic media, A., 1622.
- Zöcher, H., and Heller, W., iridescent films as reaction products of the slow hydrolysis of ferric chloride, A., 439.
- Zöcher, H., and Stiebel, F., dark-ground microscopy with very thin films on liquid surfaces, A., 852.
- Zoeller, A. See D'Aunoy, R.
- Zöllner, C. See Schering-Kahlbaum Akt.-Ges.
- Zoellner, E. A. See Gilman, H.

- Zoellner-Werke Akt.-Ges. für Farben- & Lackfabrikation, separation of rust from steel sand, (P.), B., 198.
- Zörkendörfer, W., action of magnesium salts, A., 953.
- Zörner, A. See Hüttig, G. F.
- Zoglina, J. See Potozky, A.
- Zombory, L. von, determination of mercurous, bromine, or chlorine ions by Fajans' method, A., 54.
- Zombory, L. von. See also Moser, L., and Strebing, R.
- Zondek, B., hormones of the anterior pituitary lobe. I., A., 1319.
- Zondek, B., and Aschheim, S., hormone of the anterior pituitary lobe, A., 255.
- Zondek, S. G., and Matakas, F., production of lactic acid and consumption of oxygen during tonic contraction of striated muscle, A., 109.
- Zotos, G., scientific thermal principles of industrial furnaces, B., 1049.
- Zschimmer, B. See Gen. Aniline Works, Inc.
- Zschimmer, E., problems of glass technology, B., 326.
- velocity of crystallisation of soda-lime-silica glasses, B., 460.
- Zschimmer, E. See also Riedel, L.
- Zschoch, F., Rodrian, H., and Riebeck'sche Montanwerke, Akt.-Ges., A., production of montan wax, (P.), B., 499*.
- Zshocke, H., electrode for electrical purification of gases, (P.), B., 291.
- Zuber, K., sparking potential of pure gases at low pressures, A., 833.
- Zuber, R., micro-method for measuring diffusion of colourless substances, A., 146.
- Zuckermann, L., manufacture of asphalt or coke from crude oil, B., 175.
- Zuelzer, G. See Salomon, H.
- Zürn, A. See Trautz, M.
- Zumeta, J. M., and Marticorena, A., neutralisation of free acidity of oils and fats, (P.), B., 518.
- Zumstein, O. See Abderhalden, E.
- Zunz, E., determination of the products of protein-hydrolysis, A., 489.
- Zunz, E., secretin and blood-sugar, A., 1480.
- Zunz, E., and La Barre, J., arrest of the internal secretion of the pancreas during decamethylenediguanidine hypoglycæmia, A., 369.
- Zurburg, F. W. See Crockford, H. D.
- Zutavern, P. See Schmidt, K. F.
- Zuverkalov, D., composition of nerve tissue; aromatic amino-acid content of the cerebral cortex of man and other animals, A., 1202.
- Zuverkalov, D., and Goldenberg, I., cholesterol and phosphorus-containing lipins in the blood during experimental rabies, A., 1612.
- Zvegintzov, M. See Hammick, D. L.
- Zviaginstsev, O. E., Voronova, E. A., and Chorunzhenkov, S. I., ternary rhodium salts. I. and II., A., 139, 1391.
- Zvorykin, J., degradation of rendzina soils in the Moravian Karst, B., 577.
- Zwaardemaker, H., equilibria and "automatins," A., 378.
- ions, automatins, and sensitisers, A., 811.
- Zwanzig, A. See Ettisch, G.
- Zwart, C. See Trouwborst, J. A.
- Zwart, P. See Trouwborst, J. A.
- Zwerina, R., rotary apparatus for cooling liquids, (P.), B., 888.
- Zwicky, F., mosaic crystals, A., 139.
- possible influence of the mosaic structure of crystals on the determination of Avogadro's number, A., 660.
- Zwicky, J., [dual] filter, (P.), B., 696*.
- Zwikker, J. J. L., Legal's reaction, A., 892.
- Zwint, F., grinding or crushing mills, (P.), B., 40.
- Zworykin, V. K. See Westinghouse Electric & Manuf. Co., and Associated Electrical Industries, Ltd.
- Zwyer, H., chemical action of specific diuretics and influence of the sex organs on it, A., 248.
- Zyotinski, P. B. See Rabinovitch, M.
- Zywnew, P., threefold colour reaction with nitrous acid, A., 442.